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An Exploratory Study of the Factors That Impact on the Application of Online Learning at the Department of Planning and Infrastructure of Western Australia

Alex C. Scholz
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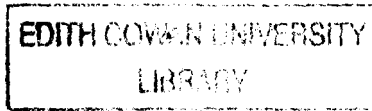
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**An exploratory study of the factors that
impact on the application of online learning
at the Department of Planning and
Infrastructure of West Australia**



By

Alex C. Scholz

B.Bus (Human Resource Management & Industrial Relations)

A thesis submitted in partial fulfilment of the requirements for the
award of Bachelor of Business with Honours at the Faculty of Business
and Public Management, Edith Cowan University, Churchlands
Campus.

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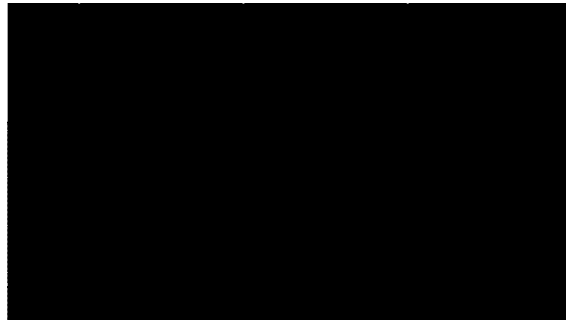
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ABSTRACT

There is a growing necessity in today's globalised and dynamic business environments for learning systems to be capable of generating the continuous learning needs of the workforces within them. In adapting to their changing environments learning workers are not only required to continuously gather new information but also to transform it into understanding within their local contexts. Much praise has been placed on the capability of new learning technologies such as online learning in supporting organisations learning processes. However, relative limited research has been undertaken on how these new learning technologies support workers in learning processes, how these new learning technologies are implemented and operate within organisational contexts, and the nature of the learning subsequently generated.

This study explores how workplace learning contexts mediate the processes of learning (Garrick, 1998 p.69) and improve understanding on how this affects the implementation of Online learning.

Many organisations have promoted Online Learning for its capability in providing a seemingly unlimited information source; flexible access, cost effectiveness and functionality (Schreiber & Berge, 1998). This study suggests that leaning outcomes generated by online learning practices, rather than being primarily correlated with the capabilities of the technology, are mediated by organisations' learning agendas, learning culture and learning context. This exploratory study acknowledges this view and focuses on how the active nature of learners' constructs and the local context in which learning occurs affects the outcomes of learning generated.

This study focuses upon a case study at the West Australian Department of Planning and Infrastructure of (DPI) and applies Jonassen's (2000) principle, that the values and beliefs of the forces controlling the technology determines if it is used to transmit or to transform knowledge. The study's parameters are guided by a theoretical framework adapted from McKenna's (1999) "Meta-Learning Process" and a qualitative methodology protocol described by Yin (1994). The perceptions of a cross section of organisational members at

the DPI are used to improve understanding of the mediating relationships involved in the dialects of learning at the DPI.

The three main conclusions drawn from the research are that: first, despite the capabilities of the technology to facilitate a range of learning outcomes, the findings indicate that perceived online learning outcomes at the DPI mirror the learning goals imposed by its current organisational learning agenda. Secondly, the findings indicate that local discourses of leadership, culture, structure and strategy reinforce the learning values and beliefs imposed by the learning agenda. Thirdly, the findings indicate that the mediating relationship between learning agenda and the role of online learning technology has prioritised Compliance orientated organisational learning goals and Transmissive learning approaches. In conclusion, the study indicates that the current learning agenda is part of the cultural pattern and a prisoner of that pattern.

ACKNOWLEDGEMENTS

Writing this Honours thesis has not only been enjoyable and interesting but it has been a wonderful learning exercise. The topic addresses learning and I found to my delight that I was able to reflect on the concepts and apply them into my everyday life.

I would fore-mostly, like to thank my supervisor Llandis Barratt-Pugh and thesis examiners Scott Gardiner and Allen Clabaugh for providing me with some essential guidance and direction in the development of this thesis. I am especially grateful to my supervisor for supplying the compass for navigation of this hugely complex and little explored subject. I am grateful for the motivation he provided and his time and resources which he generously offered. In addition, I appreciate the input and guidance provided by the other staff at the School of Management, Churchlands. Primarily, I am grateful to him for as Post modernists would say, “not hedging in my inquiry”, and for facilitating my engagement in one of the most constructivist learning experiences I have engaged in. I believe that the opportunity to engage in this learning experience was one of the most valuable outcomes resulting from my university studies.

Secondly, I would like to thank the industry participants of the study, the staff from the Department of Planning and Infrastructure (WA). In the first instance, they provided the opportunity to conduct the research. I was fortunate in that they were enthusiastic and generous in the provision of their knowledge.

Lastly, I would like to thank my friends & family¹ for their support whilst I undertook this research. I found their encouragement and interest motivating. They endured seemingly antisocial behaviour arising whilst I was undertaking this research but luckily for me they agreed that it was a sacrifice worth making.

¹ This project has been concurrent with the birth of my own family.

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CHAPTER 1: INTRODUCTION

1.1 Background

The dynamic nature of current business markets has had a vast impact on the planning of educational institutions and training units throughout the government and private sector. The National Training Authority has propounded the need for learning practices to more effectively address the requirements of workers' continuous learning needs, and the necessity of cost-effectiveness and flexibility of access (ANTA, 1994). The imperative for "Lifelong" and "Flexible Learning" practices is recognized by national training and education authorities whom promote the use of "flexible learning technology" as a potential strategy in supporting these learning needs within the constraints of limited training budgets, lack of time and mobility needs of learners (EDNA, 2000). The National Vocational Education Training (VET) system is increasingly focusing on development of skills in the effective and productive use of technology (The National Board of Education, 1996).

Experiences of implemented online learning programs have commonly not yielded the benefits advocated by much of the literature (Schaff, 1999). Although, it has been demonstrated that online technology is a flexible delivery option and may reduce costs over time, there has been limited research concerning the technology's capability in facilitating learners' continuing learning demands (Schaff, 1999). This fact highlights a need for considering a wider range of factors mediating the application of online learning technology and the learning outcomes generated.

The need for a wider analysis of the subject is articulated by much of the scepticism regarding online learning and the existing related research. Critics highlight the existence of an over-reliance on universal notions of technology-learner interaction; non-relational settings and samples; researcher bias and dispositions favouring technocentric, Modernist research designs. Other criticisms are more technical-based and refer to doubts of the level of interaction provided by asynchronous learning and the loss of non-verbal communication cues (Land, 2000).

In assessing online learning, the existing research often neglects the active nature of learner's constructs and the local context in which learning occurs. Critical management theory (Mckenna, 1999) suggests that learning in organisations is highly contextualised and that organisational learning contexts are highly localised. The Meta-learning theory acknowledges this fact and advocates that learners are active in adopting learning approaches through their interactions in learning contexts (Mckenna, 1999).

It is believed by (Jonassen, 2000) that the rationale, values and beliefs of the controller of educational technology is instrumental in determining the learning outcomes produced. In organisational learning contexts, control ultimately lies with the dominant power coalition and the learning values and beliefs it promotes. The prioritisation of learning values and beliefs through dialects can be seen to articulate the organisation's agenda for learning (Garrick, 1998, p61). This agenda permeates Human Resource Development (HRD) plans and cultural learning norms and mediates the role of online learning technology and ultimately the outcomes of online learning.

A method for exploring the learning values and beliefs of this power coalition is through examining the attributes of local leadership, cultural, structure, strategy and corporate governance and HRD discourses. From examination of these values and beliefs it is possible to articulate the learning goals and agenda that is being promoted. The learning agendas believed to shape the HRD discourses adopted by instructional staff. HRD discourses shape HRD plans and ultimately the learning outcomes that are generated. The following chapter examines these concepts in more detail. A synthesis is made of the critical relationships involved in exploring the capabilities of online learning in facilitating varying learning approaches. This study focuses on explaining the relationships. As an honours study the focus is limited to a single purposeful and revelatory case study. However it can also be argued that the focal case study, because of the independent homogeneous nature of the departments studied within the DPI and their varying characteristics, make this an interesting and diverse case study.

1.2 The Purpose of the study

A pilot study identified generally perceived opportunities and barriers for the utilisation of on-line training for facilitating learning at the DPI. It provided background information regarding the DPI's organisational change program, local factors of leadership, structure, culture and strategy. This study expands on the issues illuminated by the pilot study. The focus of this study will be on the development of an outline of these fundamental issues and their critical relationships.

1.3 The Research Questions

The initial exploration of the DPI culture and the relevant literature indicated that any organisational investigation of on line learning should be made in relation to the existing patterns and meaning of learning within the organisation. The study therefore focuses on *two* linked research primary objectives.

1. What is the relationship between the DPI's learning agenda, and the role and use of on-line training technology?
2. To what extent does this relationship mediate Transmissive or Transformational learning outcomes?

1.4 Definition of terms

The study involves concepts from a variety of research areas which include learning theory, training and development, e-learning and organisational theory. Definitions of the most prominent terms are provided to assist understanding of the concepts and the relationships existing between these concepts.

- *On-line learning*: a comprehensive term referring to any learning occurring whilst utilising computers and/or over networks.
- *Transmissive Learning Approaches/Outcomes*: a generic term denoting positivistic learning that results in an outcome of "memorisation" and knowledge transfer person to person. Incorporates concepts of behaviourism. Examples include information dissemination and training of tasks in their entirety.

- *Transformational Learning Approaches*: a generic term denoting constructivistic learning that results in an outcome of “understanding” and unique individual conceptual understanding based on previous and current context. Incorporates principles of active learning, critical reflection, social construction and contextual learning. Examples include collaborative, self-development and Action Learning. Emerging conceptual understanding may be negotiated with others to gain “shared understanding”.
- *Learning outcomes*: refers to the learner’s interaction with learning content. Representing a memorisation (transmission) outcomes of learning or understanding (transformation) outcomes of learning.
- *Organisational Meta-learning*: the meta-cognitive activity where learners adopt learning approaches within organisational learning contexts.
- *Corporate Governance*: the guidelines governing Public Sector Agency corporate operations.
- *Discourses*: politically driven social representations mainly promoted through language: for example, the discourse of the term “innovation” is – a change to practices that demonstrates improved performance. Political influence is illustrated by the fact that recognition of innovation is limited to changes that are seen to improve performance.
- *Paradigm*: refers to mind-frames and philosophical perspectives of existence that govern thinking.
- *Learning Values & Beliefs*: refers to the allotted degree of importance and convictions held regarding learning phenomena.
- *Learning power coalitions*: groupings of professional identities with similar learning values and beliefs.
- *Professional Identities*: refers to the positioning of staff within the organisational context.
- *Dialectics of learning*: power/control struggles between power coalitions regarding learning values and beliefs.
- *Organisational Learning Agenda*: the prioritisation of predominant learning values and beliefs – the setting of organisational learning goals.

1.5 The Significance of the study

Utilisation of online learning technology in PSA learning practices is increasing necessitating the *ability of practitioners to understand* the factors that mediate the outcomes of online learning. The study aims to enrich the knowledge base concerning analysis of the outcomes of online learning. Much of the existing research involved experimenting with learner attributes and capabilities of online learning technology. Although this reasoning is plausible for artificial settings, business settings involve a wider range of variables influencing learner's positioning and learning goals that need to be acknowledged. This study has acknowledged two important principles raised in contemporary literature. The first principle being that organisation learning contexts are a primary factor affecting learning outcomes; and the second being- the premise that the use, role and ultimately the learning outcomes facilitated by educational technology are largely influenced by the values and beliefs of who controls it. This study sought to incorporate these two concepts into its analysis.

The *second reason* why this study is significant is because it acknowledges the importance of local factors affecting the application of online learning in business settings. The study examines organisational attributes that reflect the values and beliefs regarding learning existing at the DPI. Of particular focus, is the mediation of the role of online technology by examining local leadership, culture, structure and strategy. In exploring these local factors this study is able to interrogate the values and beliefs regarding learning and the mediating relationships involved in the application of online learning. It is through the depth of focus on a single organisational case that the study is able to illuminate these key issues.

The *third reason* why this study is significant is because it places the paradigm of assessing online learning technology's capability in a learning context, rather than a techno-centric context. The literature is full of material propounding the capabilities of online learning technology and much of the praise relates to functionality and efficiency. There is a lack of research that focuses on the application of online technology in

facilitating human learning phenomena. This is believed to be a serious shortcoming of the existing literature. HRD planning of online learning practices need to take these important factors into account and the study focuses on such cultural issues at the DPI.

1.6 Limitations

The greatest strength of this study is also its greatest limitation. The use of a single unit of analysis both provides the depth for the investigation and limitations concerning the breadth of data obtained. This has implication for the generalisation of specific findings from this study in their credibility as adding to the wider stock of academic knowledge.. However in this case the sample chosen can be viewed as a multiple embedded case with disparate departments, functions and roles existing within one organisation that is both public sector and involved in direct commercial services with the public.

A further limitation is being unable to account for all the mediating factors existing in the governance of PSAs. In particular political influence on learning agendas and the effects of change programs. The continuous nature of advancements in information technology and increasing capabilities of Online training technology is believed to limit assessments on its ability to facilitate learning. In this context there is a large amount of historical threats to validity of the findings.

Additional limitations include the researcher's limited research experience, bias in sample selection, bias in data management, bias in data analysis and interpretation. Acknowledgement of these limitations is considered by the author and caution was adopted in reaching conclusions. These limitations are addressed in recommendations for further study.

1.7 Organisation of the study

The material in this report is presented in six chapters. Chapter Two carries out two functions. Firstly, the existing literature regarding on-line learning is reviewed to establish a conceptual foundation for the development of this study and to identify gaps in the existing literature base. Secondly the chapter reviews the theoretical design of the

study. The theoretical framework guiding the research questions is reviewed. This is followed by a review of the conceptual frameworks that guide the data collection and analysis of the respective research questions. To clarify the research protocol, corresponding research objectives are presented in tabulated form. Chapter 3 examines, explains and justifies the methodological approach taken in this study to collect, collate, analyse and present the evidence in order to answer the two research questions. Specific areas examined include the research stance, single case-study, sampling technique, the data gathering instruments and the style of data analysis. Chapter 4 presents the major findings of the study. The key themes and patterns of the data are presented in narrative form. They are presented according to research objectives/categories in the theoretical framework. In Chapter 5, the analysis displays the relationships of the data, examines the emerging themes and interprets the implications of the results according to the research objectives and literature. Finally, chapter Six, conclusions and recommendations provide a summary and synopsis of the study's results, and articulates areas for further study.

CHAPTER 2: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Introduction

This section has two purposes. Firstly, to review the existing literature to determine the extent of current thinking and practice in the area. This leads up to establishing areas for the study. The second part of this chapter, guided by the review of the literature establishes a theoretical framework with which to conduct the study's research.

2A – The Literature Review

This research addresses a relatively new research topic. It is an integration of a wide range of research subjects including learning theory, educational technology, organisational behaviour and public sector administration. There is a dual emphasis upon the two interrelated issues of learning technology and pedagogic intention. That is, the capability of the technology and the issue of 'how' people learn (Danchak, 2004). Each of the fields involved is made up of several sub-fields. The major sub-fields addressed in this study include the meta-learning theory, on-line learning technology, learning cultures, leadership theory and strategic management. This study reviews literature in these areas that informs and contests the shape and understanding of this study and concentrates on the last 10 years. Literature published previous to date has only been referenced if it is of special interest to the field and has not been superseded by subsequent studies. Much of this literature review was conducted as preparation for the fieldwork and there is therefore an emphasis upon reviews, studies and articles prior to 2001.

2.1 Literature Themes

Online technology and Online Learning

Berge & Collins, 1995 provides a comprehensive definition of the various types of online training tools – “Informatics”, “Conferencing” and “Computer Assisted Instruction” (CAI). According to Berge & Collins 1995 and Forsyth 1996, ‘Informatics’ encompasses online sources of information including virtual libraries, databases and network types such as Intranets and the World Wide Web (WWW). The Conferencing tool involves the tools of emails, group conferencing such as discussion forums and interactive messaging involving various forms of inter relay chat (Ellsworth, 1994). Computer Assisted Instruction (CAI) involves computer-based software programmed to provide, tutorials, case studies, practice and drills, simulations (Berge & Collins, 1995). However, these tools are not mutually exclusive and functions of these can be combined to meet specific needs of human users. Examples include On-line Groupware/Projects, Internet CD Roms, and Web-based Authoring and Scaffolding programs.

Schreiber & Berge, 1998 provides a comprehensive description of the forms and nature of online learning. Online learning can firstly be differentiated on the basis of the synchronicity. Synchronous learning involves learners interacting with online content and other learners via computer mediated communication in “real time.” Examples include Inter Relay Chat and group conferencing. Asynchronous learning involves learners interacting with content and other learners over computer mediated communication in “separated time”. Predominant examples include email, Informatics and Computer based instruction.

There is a growing body of research focussing on the opportunities that on-line training technology provides for learning practices (Caplan, 2004; Boettcher, 2004; Simeroth et al 2003). The literature has identified various functional capabilities provided by online training technology - such as information dissemination; computer mediated communication, computer assisted instruction, modelling and calculation and learning guidance (Ellsworth, 1994). These are additional capabilities provided by online technology including flexibility of access [QCPD in Education, 1999 p.10]; student

control over content and method of instruction (Forsyth, 1996); updateability and depth of content (Hall, 1997); access to multiple information sources and the internet (Berge & Collins, 1995); authoring and scaffolding software support for constructive learning and collaborative learning opportunities (Schreiber & Berge, 1998).

Widening the scope of analysis of online learning

Arising from the opportunities that are emerging, many parties are taking an arguable technocentric view and assessing online learning capability on the premise of the technology's functionality. Researchers Schrieber & Berge 1998 have propounded that online training technology is capable of facilitating both positivistic and constructivist learning approaches. However, it is pointed out by Kerr (1996) that in an attempt to analyse the effectiveness of online training technology in terms of learning it must be recognised that learning is a process occurring in people not technology. Therefore such analyses should primarily review theories of how people learn and relate these to theories on how online training technology facilitates human learning approaches.

Human Learning Approaches

Learning approaches are given varying labels by the literature (Nuthall, 1999). McKenna (2000) refers to the "Shallow" and "Deep" learning approaches, whilst Schreiber & Berge 1998 provide the labels of Transmission and Transformational learning. However, both labelling formats denote similar conceptual divides and can be viewed as the continuum of learning environments that are experienced by learners. Such conceptual divides underpin organisational direction and processes of organisational change (Jonassen, 2003; Chi & Roscoe, 2002; Ferrari & Elik, 2003).

Transmission and Shallow learning approaches both involve the memorisation of knowledge and reinforcement of learning behaviour patterns. (Schreiber & Berge, 1998, p21). Transformation and Deep learning approaches both entail a constructive understanding of knowledge. These learning approaches involve independent, interpretation and construction of new assumptions, through critical review and restructuring of existing understanding (Schreiber & Berge, 1998). Transmission is seen

by Schreiber & Berge, 1998 as involving teacher-centred learning, teacher control over goals, content and methodology. Schreiber & Berge, 1998, Ellsworth, 1994 and Morrison, Lowther, & DeMuelle, 1999 see Transformational learning incorporating a number of concepts being individual reflection, social construction and situational or contextual cognition. Schreiber & Berge, 1998 sees learner-centeredness as learners having control over their learning goals, content and methodology. The development of learning environments may be a conscious facilitator/manager decision or more likely is an unconscious act as individuals model past and current learning practices within their micro and macro culture.

The criticisms of the existing research and relabelling the role of learning technologies Kerr, 1996 argues that much of the application of educational technology has been driven by technological opportunism, “Technocentrism” that has been justified on the grounds of technology’s ability to carry out functions and operations efficiently rather than proven assessments on how technology can facilitated learning. As a result, much use of technology in education has resulted in more “wonderment” than actual benefits (Kerr, 1996, p112). Shapiro (1996), Hlynka & Belland (1991) and Squires (1999) point out how education/instructional designers have shaped the rationale for use of education technology. Jonassen (2000) acknowledges this argument and points out that the values, beliefs, needs and purposes of whoever controls the technology determines how technology is utilised to educate. The controller of the technology will have to decide if it is used as a medium for transmitting knowledge and values and for exerting power over learners; or if it will be used as a means for empowering learners to reflect, construct, and transform knowledge (Jonassen, 2000).

Jonassen (2000) argues that education and training providers determine if educational technology facilitates constructivistic learning approaches when they design it to be an “intellectual partner” to learners rather than a controller of “learning processes”. Technology used as an intellectual partner helps learners to recognise their understanding; how they came by it; and supporting them in restructuring it into more meaningful forms. As a result, learners will be in control of their learning, be motivated

to reach their learning goals and be empowered to engage in constructivistic learning (Jonassen, 2000, p25). In effect, application of educational technology with transformational values and beliefs will result in transformational learning and Post-modern thinking.

Hlynka (1991) describes the alternative outcome where application of educational technology is driven by Modernist, Transmissive values and beliefs. Such a rationale will involve learning being controlled towards satisfying material and practical purposes and related to the utilisation of technology rather than learner's goals. Hlynka & Belland, (1991) argues that learning will be separated from learners' needs and placed with those controlling learning practices and technology designers. This reduces learners' control over their learning and their engagement of independent, transformational learning (Hlynka, 1991, p127 and Barratt-Pugh, 2001).

Organisational Learning Contexts and Dialectics of learning

In applying Transformational learning to an organisational learning context, control relationships are believed to stem from a number of origins (Volet 1999; Argyris and Shon, 1996; Easterby Smith, 1997/2000; Cornford, 1997). In this case study the focus of this research at the DPI power is believed to be sourced from PSA corporate governance and discourses. Bartol, Martin, Tein, & Mathews (1995) articulate PSA structure and the existing leadership paradigm as sourcing control. Power/control is organised in ongoing dialects between power coalitions (Garrick, 1998). Clegg (1989) and Clegg and Palmer (1996a, 1996b) indicate how power moves through all organisational relations to construct 'appropriate' identities, and that this is especially important where those relations are focused primarily upon constructing learning and identity. The executive management have the power to determine what is learned and how it is learned (Legge 1995).

These power coalitions are comprised of various professional identities that have similar values and beliefs regarding learning (Garrick, 1998; Hager, 1998). The outcomes of the

dialectical process is what Garrick (1998) calls the “agenda” – the prioritising of learning values and beliefs, in effect the setting of organisational learning goals (Luke, 1995).

Learning agendas are believed to reinforce learning norms throughout the organisation. In relation to PSAs, Garrick (1998) highlights Boje’s metaphor of the “Iron Cage” of the “Bureaucratic Teaching Machine”. The “Iron Cage” refers to the seamless educational bureaucratic instructional apparatus that controls, traps and pushes learning behaviour into compliance with the established learning agenda. However, in the present, the Iron cage metaphor is replaced with the “Virtual Enclosure” of the workplace and management agendas. Technology and science are now an important tool in the systematic fashioning of workers’ learning norms (Garrick, 1998). Garrick (1998) argues that organisations contain both “Visible” and “Invisible” learning curricula which reflect learning agendas and corporate objectives. Visible learning curricula are articulated in formal HRD plans (Garrick, 1998) and through the language that prescribes legitimate actions within the organisation (Fairclough, 1995; Luke, 1995; Hardy and Palmer 1998). Invisible learning curricula are reinforced in the learning culture (Garrick, 1998; Van Maanen and Barley 1985). Garrick (1998) further argues that learners are manoeuvred into compliance with organisations’ learning agendas through punishment/reward systems and the self-regulation, positioning of their professional identities (Garrick, 1998). Corporate discourses permeate all organisation practices and construct, promote and value certain kinds of identity (Garrick, 1998).

Refocusing towards the learning context, McKenna (1999) articulates Garrick's (1998) “Bureaucratic Teaching Machine” concept in the framework of Organisational Meta-learning. The Meta-learning process involves what he calls “organisational paradigms” mediating the organisational learning context, positioning instructors’ and learners’ professional identities and ultimately shaping the learning outcomes generated. The outcomes of learning generated include “Shallow” (Transmission) learning and/or “Deep” (Transformational) learning (McKenna, 1999). Organisational cultures shape how learning is seen, targeted and delivered (Argyris, 1986)

Visible learning curricula – HRD plans/structure

McKenna (1999) conceptually articulates how instructional approaches influence the adoption of learning approaches. McKenna (1999) labels instructional approaches as the “Quantitative and “Qualitative” learning conceptions. These can be seen as synonymous with the Transmission and Transformational educational approaches. Garrick (1998) argues that HRD practices reflect the organisation’s learning agendas. HRD practitioners position their identities in alignment with the learning agenda and corporate discourses (Garrick, 1998 p.61). This results in the alignment of HRD strategies with the organisational learning agenda (Hamel and Prahalad, 1994). Garrick, (1998) argues that HRD discourses are currently disposed to ensuring that learning practices generate knowledge that reflects “Performativity”. “Performativity” is a term described by Garrick (1998) as a value attributed to constructed knowledge on the criterion that it is shown to result in improved performance in the context of supporting business operation.

Invisible learning curricula

In an organisational context, learning values and beliefs are reinforced directly through organisational culture which is founded by and embedded through leadership (Schein, 1995). Organisational culture is defined as the reinforced patterns of behaviour, values, beliefs, norms and mental models (Schein, 1995). Gardner (2000) sees paradigms of thinking in an organisational context as the product of the interaction of culture and structure of the organisation to result in an “established way of doing and thinking things”. Schein (1995) argues that leaders found, embed and transmit culture in organisations. “Founding” culture involves the controlling power of the organisation creating its initial culture through establishing a vision, mission; the people making up its composition and the environment within those people interact (Schein, 1995). “Embedding” involves instilling new assumptions into existing cultures, structure and strategy (Schein, 1995, p228). Schein (1995) identifies six primary embedding activities - modelling behaviour; highlighting areas which leadership addresses, measures and controls; leaders reaction to critical incidents; observed criteria for resource allocation; observed criteria for rewards and status; and observing criteria for selection and promotion.

Six secondary cultural reinforcement mechanisms are described by Schein (1995) that work when consistent with the six primary embedding mechanisms. These include organisational design and structure, systems and procedures, rites and rituals, physical environment, stories and legends and formal statements of organisational philosophy and values (Schein, 1995). Agendas of learning are embedded within the cultural patterns.

Compliance and Transmissive Organisational Learning Contexts

Stacey (1996) describes compliance orientated learning contexts where learners engaged in single loop learning. He articulates action/reflection learning cycles where organisations are seen as feedback systems (Rees and Rodley, 1995). Stacey (1996) argues that organisations engaging in single loop learning and maintain the same paradigm engage in negative feedback where behaviour is controlled back towards the “status quo”.

Creative and Transformational Organisational Learning Contexts

In contrast what does a Transformational learning culture involve? Rylatt (1994) describes a learning organisation as encompassing truly empowered learners generating innovative knowledge, engaging in double loop learning and continuously transforming their behaviours, values, beliefs, strategies and mental models. Schein (1995) describes a learning culture as the institutionalization of behaviours of self-managed diagnosis and transformation of culture. Stacey (1996) expands on this point describing learning goals of compliance and single loop learning and learning goals of creativity and double loop learning. Schein (1995) argues the attributes of such a culture as reinforcing a positive view of human nature, sharing of information; promoting diversity, emphasising tasks and relationships. Wenger, (2000) insists that in ‘communities of practice’ (Lave, 1991) it is the leaders who determine what is learned by prescribing cultural norms that constrain what ‘can’ be learned and accepted within the workplace.

Transformational Learning Leadership

What type of leadership is required to found and embed a Transformational learning culture? Stewart & McGouldrick (1996) suggests a Transformational leadership approach is required. Transformational leadership envisions leadership as being a socially constructed phenomenon involving exchange between leaders and the lead and the matching of expectations (Stewart & McGouldrick, 1996). This view draws from principles of Maslow's (1954) needs theory and sees the Transformational leader engaging learners as whole persons, addressing their higher order needs and full range of motives that form these needs (Stewart & McGouldrick, 1996). Gephart, Marsick, Van Buren, & Spiro (1996) sees Transformational leadership as creating the following exchanges and expectations: trust and openness; valuing the well-being of all employees; respect for diversity; alignment of employees' growth and development goals with organisational development goals; encouragement of inquiry and dialogue needed to challenge assumptions; allowance of mistakes to be shared and viewed as opportunities for learning; rewarding, supporting and promotion of creativity and learning behaviour; encouragement of self reflection and sharing of information; incorporation of learning onto the job; frontline management facilitating and empowering learners towards a shared vision; focus on relationships as well as tasks; and viewing human nature as proactive and mutable. However, there is differentiation between such extreme approaches and leadership from task to task and situation to situation.

Transformational Learning Structure

Carl Rogers (1969) is perhaps one of the most significant authors in terms of establishing some of the principles that generate environments where there is 'the freedom to learn' for adults within their organisations (Knowles 1991). What are the perceived attributes of such a Transformational learning structure? Gephart et al. (1996) argues that the structure of a learning organisation overcomes internal divisions and rigidities; facilitate work and learning across external boundaries; and captures and shares learning (Swieringa and Wierdsma, 1994). Gephart et al., (1996) argues that in a transformation learning structure roles are flexible, and work is done in cross-functional teams that bring together perspectives from across the whole organisation. Belasco (1998) believes that

Organisations aiming to promote organisational learning need to build on-the-job learning experiences.

Transformational Learning Strategy

Legge (1995) argues that a transformational learning strategy involves a pluralistic approach to strategy formulation. Pluralism is seen by Senge (1990) as an essential component of Systems and organisational learning. Senge (1990) argues that it enables and empowers learners to participate in transformational learning. The Classical strategic perspective that emphasises Mechanistic thinking and learning is believed to be orientated towards controlling rather than empowering learners (Travaglione & Marshall, 2000, p50). Stacey (1996) argues that organisations are feedback systems either reinforcing the status quo and promoting compliance or challenging the status quo and promoting creativity. Strategy in relation to learning is seen to emphasise compliance and single loop learning or double loop learning and creativity (Stacey, 1996). Single loop learning is seen to involve learning activities within the same paradigm and double loop learning entails organisational learning activities continuously challenging and transforming the existing paradigm.

Integrating the Values and Beliefs regarding learning and Educational Technology

In addressing how learning and educational technology are influenced by organisational cultural values, beliefs regarding learning, it is helpful to examine historical application of educational technology in educational institutions. Shapiro (1996) highlights how educational and training systems have traditionally reinforced Modern, quantitative, Mechanistic paradigms of thinking. Shapiro (1996) argues that educational systems reflect the collective beliefs, values and cultural and ethical norms of society and that western educational systems have reflected much of the image and design of the industrial age of the previous century. Hlynka (1991) argues that educational technology has traditionally been aligned with a Quantitative and “Mentalistic” philosophical view, that asserts that the mind is separated from the rest of existence in order to explain and control it. Technology has complemented this perspective and contributed to the establishment of scientific, rational, and empirical reasoning methods as the foundations

of Modern paradigm of explaining existence (Hlynka, 1991, p124). Hlynka (1991) argues that instructional design of educational technology has traditionally been used to control learning for material and practical purposes. This argument is mirrored by Travaglione & Marshall (2000) that see that much technology has promoted the mechanistic view of learning where humans are viewed as passive, empty vessels that respond like machines to external stimuli. Garrick (1998) argues that technology is being used in the “Virtual Enclosure” of the bureaucratic teaching machine to systematically shape learning behaviour into alignment with the organisation’s learning agenda. That it aims to facilitate knowledge construction on the criterion that it is ‘performative’ (Garrick, 1998).

2.2 Conclusion

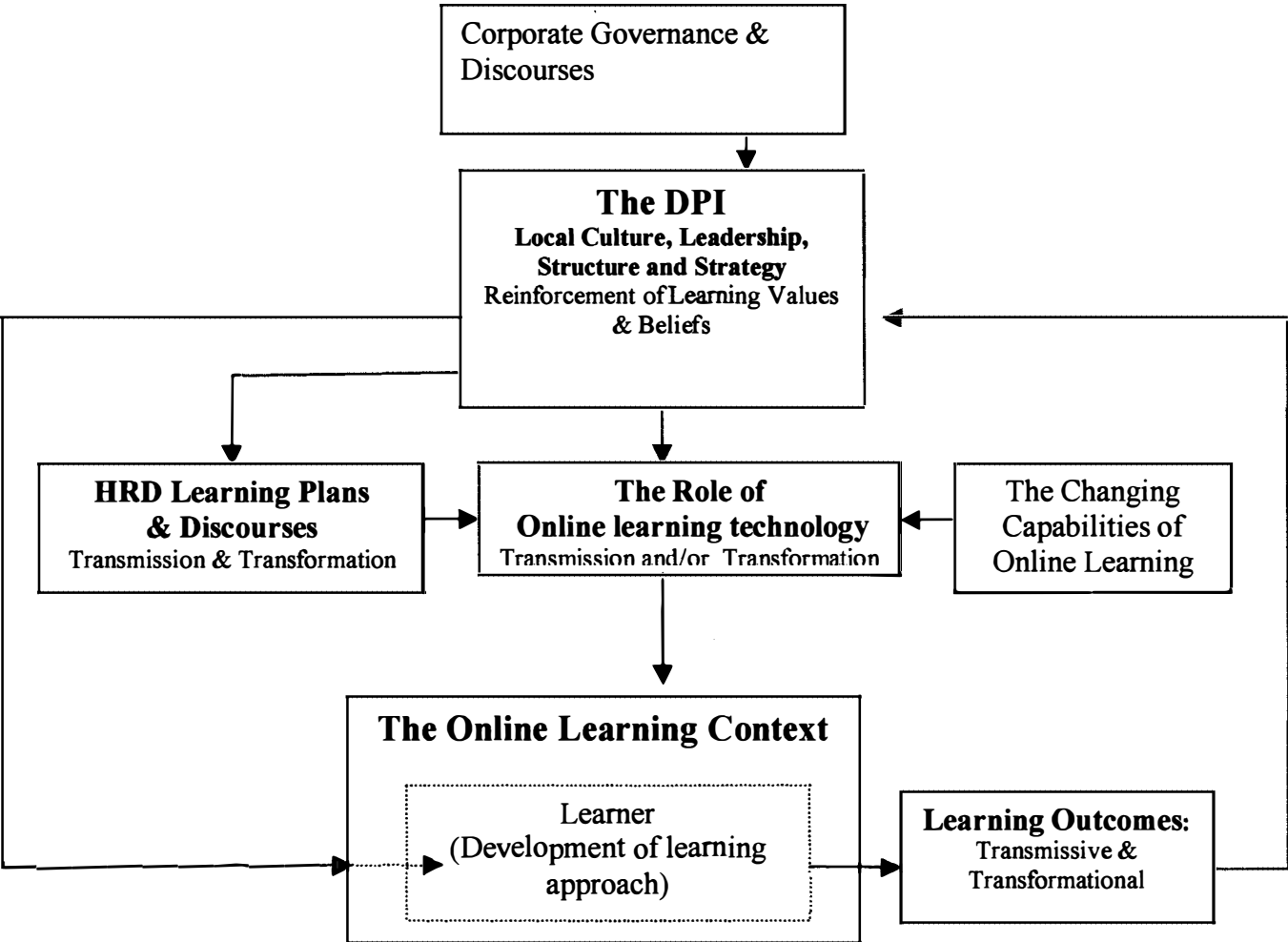
This thesis involves the literature from extensive bodies of knowledge that is under rapid transformation. E learning and the implications for organisational structure and culture are issues most organisations are currently grappling with to gain competitive advantage. This thesis has attempted to provide a constructive overview of the most salient issues and dilemmas from the current literature. This body of research suffers from a lack of definitive terms, unclear research parameters, non-integration of theories, limited empirical application and limited use of research paradigms to analyse phenomena (Driscoll & Dick, 1999). In addition, the majority of the research reviewed has been conducted in educational settings. These studies have limited generalisability to organisations due to the difference in important factors of leadership, culture and their impact on the adoption of instruction approaches, learning goals and outcomes. Importantly, most of the research has not addressed the significant impact that values and beliefs have on the application and role of on-line training technology and therefore the context of learning that determines the various learning outcomes generated. These issues need further exploration given the emphasis placed on online learning being employed for organisational development.

This study attempts to pursue these issues through a study that investigates the actual practices of introducing online learning within an organisation. The study attempts to take the key issues gathered within this literature review and models them within the following conceptual frameworks. By using these frameworks based upon current theory, it aims to examine how organisational learning values and beliefs shape the role of online learning technology. This study therefore attempts to examine how organisational attributes of culture, leadership, structure and strategy reflect and reinforce the values and beliefs about learning, mediate the organisation's learning agenda and instructional goals, and ultimately the outcomes of learning generated. The specific focus of the study is on how this process shapes the role, opportunities and outcomes of online learning in the context of the DPI. The following conceptual frameworks are constructed to guide this examination.

Part B: The Theoretical Framework

The previous review of the literature has indicated the need for studies to focus on how e learning technologies support workers in learning processes, how e learning technologies are implemented/operate within organisational contexts and the nature of the learning generated. This study is based upon the complex relations that exist between online learning technology and learning and how this relationship is or may be mediated by the organisational learning context. The following diagram indicates the conceptual location of this study.

2.3 Figure 1: The Theoretical Framework:
A framework of learning in an organisational online learning context.



In this diagram the DPI as an organisation, within political control, occupies the central space. Managers with allocated responsibility determine the HRD strategies and the related role of technologies to operationalise their learning programmes. Advances of technology continually mediate those decisions and the resources available. The context of the workplaces has a considerable influence upon any workplace based learning initiative and mediates the nature and extent of the learning outcomes in terms of knowledge generated, new shared meaning, and changed behaviour patterns. This study will focus on specific relationships within the framework that could benefit from empirical investigation.

2.4 The Primary Research Questions

The study is based on two principal research questions each which has been developed from conceptual mapping of the issues identified in the pilot study and lie at the heart of the previous theoretical framework.

What is the relationship between the DPI's learning agenda, local attributes of culture, leadership, structure, strategy and the role of online learning technology?
To what extent does this relationship mediate Transmissive and Transformational learning approaches?

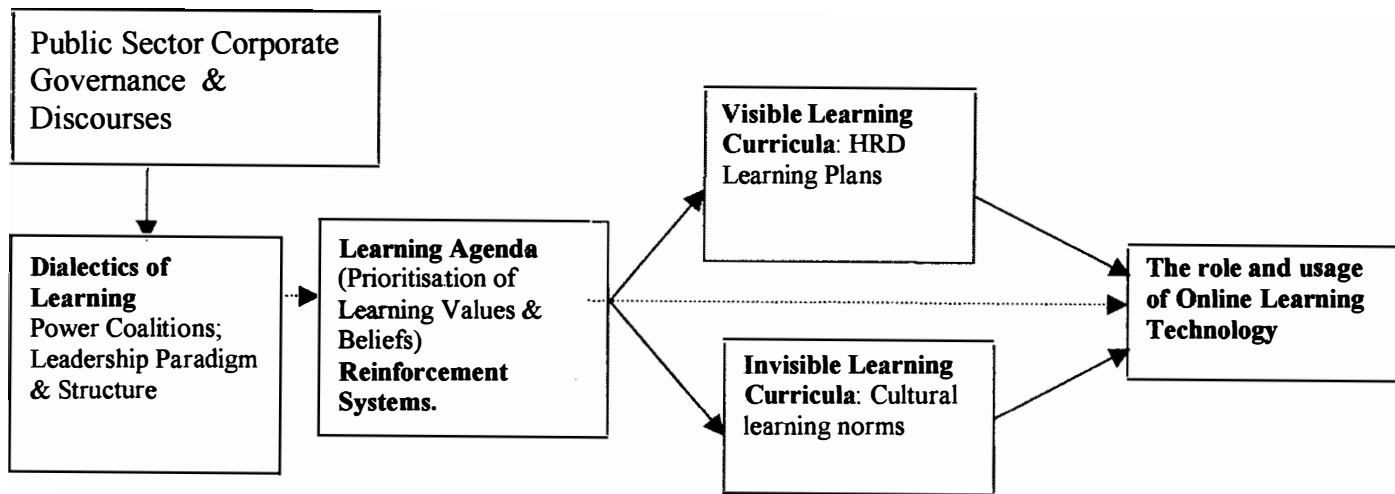
2.5 Explanation of the theoretical design

This outline of the study now moves from the broad theoretical framework that locates the broad relations of the study to more specific conceptual frameworks that incorporate the relations that underpin the study methodology. The study utilises the Meta-learning Process, as the general conceptual framework from which to explore the relationships involved in mediating the role of online learning technology and the shaping of learning outcomes.

Conceptual framework 1 addresses Research Question One. It illustrates the mediating relationship that the organisational learning agenda has with the HRD learning plans and cultural learning norms believed to be significant in shaping the emerging role of online

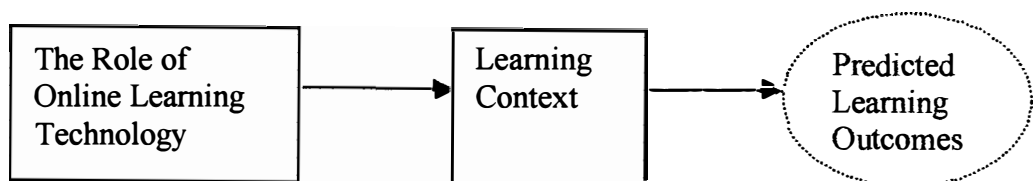
learning technology. The relationship involved in driving the learning agenda is illustrated by the linkage between the dialectics of learning and the dynamic learning agenda.

Figure 2: Conceptual Framework 1



Research Question Two is addressed in Conceptual framework 2 by the illustration of the relationship between the emerging role of online learning technology, the online learning context; and the transmissive and transformational nature of the predicted learning outcomes.

Figure 3: Conceptual Framework 2



2.6 Description and definition of elements in Conceptual Frameworks

Professional Identities, Power Coalitions and Dialectics of learning

The term “Professional Identity” refers to the positioning of staff’s working identities within the organisational context. The term “Power Coalition” in this study is a representation of the collective power of groups of Professional Identities - groups of employees with similar values and beliefs regarding learning. These values and beliefs are formed in an ongoing process of dialects. The power of a coalition is determined by organisational structure, leadership paradigm and dialectics.

Organisational Learning Agenda

This refers to the prioritisation of learning values and beliefs regarding learning. In this study the learning agenda is synonymous with the setting of organisational learning goals

The Visible Learning Curricula

This refers to the HRD Learning Plans and Discourses. They are shaped by the organisational learning agenda and local strategy attributes reflecting the organisation’s learning values and beliefs. Instructional goals and discourses are seen as being orientated towards Transmission and/or Transformation.

The Invisible learning Curricula

This refers to the culture norms that promote learning values and beliefs and position professional identities.

The emerging role of Online Learning Technology

This represents the emerging role proposed for online learning technology in facilitating the DPI’s learning practices. It is shaped by the Organisational Attributes, Values and Beliefs and Learning Agenda and Goals. It is seen to be orientated towards facilitating Transmissive and/or Transformational learning approaches.

The Online Learning Context

This represents the organisational learning context in which Meta-learning occurs. The elements of the learning context comprises of learning culture, structural support for learning, leadership of learning, and the strategic role of online learning. The learning context is determined by its relationship with organisational attributes, organisational learning goals and application of online learning technology.

The Learner

This refers to learners interacting with the emerging role of online learning technology within the learning context. The learner is active in adopting constructs that position itself in alignment with the organisational learning agenda – affecting its adoption of learning approaches.

Learning Outcomes

This refers to the transmissive and transformational nature of learning outcomes generated.

Overview of the Research Objectives

The Primary Research Questions are expanded into research objectives that drive the data collection process. The study has determined six main lines of inquiry or research objectives. These Research objectives form a framework for the investigative process.

Table 1: The Research Objectives

Research Objective 1)	To interrogate the factors driving the dialectics of learning – Corporate governance & discourses, Learning Power Coalitions, leadership paradigm and structure.
Research Objective 2)	To interrogate the learning agenda – prioritisation of learning values, beliefs and goals.
Research Objective 3)	To interrogate the Visible Learning Curriculum – examining HRD learning plans & discourses
Research Objective 4)	To interrogate the Invisible Learning Curriculum – examination of the learning culture – local leadership and structure’s reinforcement of learning values and beliefs.
Research Objective 5)	To interrogate the emerging role of online learning technology
Research Objective 6)	To answer the research questions by integrating the relationships between the power coalitions, learning agenda, HRD plans, cultural norms and the role and usage of online learning technology.

These objectives/questions will be used within the research design framework that is explored in the next chapter.

CHAPTER 3: METHODOLOGY

3.1 Research Strategy and Design

A study of online learning within organisations primarily requires interaction with organisations. In terms of research design, gaining access to an organisational situation was of critical strategic importance (Patton 1990). The opportunity arose to carry out a joint research project within the DPI and this primary liaison underpinned the research design for this study. The partnership defined the options available for the study, the broad objectives of the research and the timescale for the project. However, in each of these areas the consultation between the researcher and the organisation enabled the broad principles of the study to be fine tuned through negotiation with practitioners. This text would argue that such co-development of the research design that accounts for the realities of the field of practice is in fact preferable to the production of an academic research proposal that is then subsequently modified by the realities of organisational interactions (Merriam 1998).

This study can be positioned in the critical and constructivist paradigm that focuses upon the examination of relations in practice (Miles & Huberman, 1994). Primarily this is an inductive naturalistic field study investigating the practice of online learning within a major State department.

The study is based upon an a priori framework which has been built from previous literature and theory to proposes the more significant relations that exist in organisational practice. However, this study focuses upon building a grounded model of such practice. As such, the study acknowledges that previous theory has mediated the exploration but the method used has enabled the voices of practice to form unique patterns.

This study is based upon a case study approach because it seeks to investigate emerging meaning about learning within an organisational social system. Such a study feeds upon multiple and rich qualitative data that can only be produced effectively from extended

investigation within organisations (Remenyi, 1998), and in this case within one organisation given the resource limitations of an honours thesis.

This case study utilises a purposive, exploratory, relativist approach of inquiry (Stake, 1978). The approach is based upon exploring in practice what is happening within an organisation and accepting that there will be multiple perceptions of that organisational reality. This approach is deemed suitable when the subject is new and a limited existing conceptual framework exists (Sekaran, 2004).

The single case study provides an opportunity for a unique and deep data collection from multiple sources. In terms of Yin's (1994) analysis of case studies this design is a single organisation, one shot, embedded case study. That is the study focuses upon a sole organisation, at one point of time and collects data from several sources.

The study is qualitatively based to collect rich multiple participant impressions. The nature of the research problem prescribes the gathering of detailed and multiple qualitative data and both the depth of data and the diversity of perspectives therefore mediate a qualitative approach. Qualitative data as described by (Miles & Huberman, 1994) provide such rich descriptions and are associated with the real organisational context of the study, which assist in gaining better understanding of the phenomena and context.

The study will use a sole researcher due to the limitations of the projects but also so that the interaction within the study is minimised and the data collection process can therefore produce greater reliability. While the study acknowledges the inexperience of the researcher, the pilot activity has been used to develop the researcher and care has been taken to use protocols and mentoring to build the reliability of the research process.

3.2 The Sample and Unit of Analysis

This case study is based upon a single case study that is defined by Yin's (1994) case study matrix as a *multiple embedded case*. While it may appear that a single organisation

provides a sole case, in fact, the DPI presents several sub cases within the organisation as the study explores disparate departments with differing work functions and environments which are interrogated at different employment levels that involve operators and managers.

The focus upon this specific case is valid because the organisation provided considerable open access to a major State department which was a large organisation with both regulatory and commercial entities situated within urban and rural settings and employing both manual and white collar operatives. Thus the case provided great diversity as a research opportunity and was a significant business to gain insight from. While the case at the centre of this study could be critiqued as an opportunistic sample, it could in no way be described as a convenience sample (Merriam 1998). This project is in fact built upon the fact that a well-focused academic exploration was subsequently supported by unique organisational access.

The case study also involves multiple *unit of analysis* exploring both participant perspectives, management aims, and incidents of practice. This approach was however mediated by a number of factors such as the research opportunity and access provided by the DPI and the localised nature of the data focused on by the study. The sample was somewhat predetermined by the opportunity of access to the DPI's staff. The sample generates the benefits of practical application of the subject researched. However, it also has resulted in some limitations of access to information and a limited range of viewpoints.

The *target population* for this study consists of the DPI's training planning managers, HR personnel, on-line training designers, trainers and trainees in areas where on-line training is planned to be implemented. In selecting the sample for the study, attention was paid to the low number of existing samples in the research context population and the time and cost constraints involved in the case study analysis. Remenyi, (1998) claims that selection of a non-probability sample is allowable when undertaking qualitative research. Informants were selected on the basis of meeting criteria involved in the on-line training

program; in the organisational learning culture; having an understanding of the research issue and having been employed at least six months. They were like the broader case study itself a revelatory sample, in that they were chosen because they offered the best opportunity for learning in depth about the issues that was the focus of the study. The informants are composed of varying management levels and job roles. A key factor in selection was managerial positions and having access to the complex information that was required.

3.3 The Research Instruments

The study involves three main forms of information collection methods; observation, record scanning, and interviews. Interviews are the primary instrument and form the heart of the process.

Denzin and Lincoln (1994) indicate that researchers use of a combination of techniques in field research and highlight the specific contribution that record scanning and observation can make to support primary interviewing instruments. First, **observation** was used to collect researcher impressions of the locations and environments studies to build up an organisational context and climate. Visual cues provide a contextual platform of values (Patton 1990, p219) that can triangulate discursive data from interviews. This data was recorded as the research notes and used to construct the narrative accounts of the organisational interaction. Field notes, as Le Compte and Preissle (1993, p.227) indicate provide the researcher with additional contextual information where ‘any record is better than no record at all’. These notes consist of the most accurate record that could be taken as close to the time of action as was possible with the researcher a junior guest within another organisation. Again, Le Compte and Preissle (1993, p.228) indicate that the social situation dictates the form and time available for recording. In this case field notes were taken sporadically but with a clear distinction being maintained between the ‘words of participants’, paraphrasing of participant phrases, the intuitive observations of the researcher, and the more concrete observation of the environment. Meriam (1996) indicates that observation becomes a more powerful instrument when the researcher has gained an understanding of the context of practice. In addition, while interviews offer

direct data from organisational participants, the presence of the interviewer and interaction process itself invades the workplace context. In comparison, observation taps a workplace environment as yet unsullied by researcher interference (Adler and Adler 1994). Observation contributes the outsider or etic perspective of a workplace while interviewing provides an insiders or emic perspective of the workplace.

Second, **hard copy literature** was sourced from within the organisation. Denzin and Lincoln (1994) indicate that documentary evidence can provide an additional source of historical evidence that organisational actors are unable to supply. However, Patton (1990) suggests that access to records is rarely gained until the researcher has developed considerable rapport and trust with the principle subjects of the research. In this study documents were sourced after relationships had been established with the DPI. This consisted of public documents that assisted in building a broad context for the study but more importantly was based upon internal documentation where statements had been made about organisational intentions and relations. In addition, some of the intent and meaning associated with online learning was also produced in note form from preliminary discussions with staff at the DPI. Records of meetings and policy documents formed the bulk of this material and were used to form the interview protocols and to triangulate participant statements.

Thirdly, **interviews** were used to collect the core of the research material as participants could respond directly to questions about intent and meaning within the organisation, in a situation where the researcher was able to probe for further details. In this study interviews are used as the preferred form of interaction to find out what is “in and on someone else’s mind (Patton 1990, 278). Their structure varied in formality according to the purpose of the research phase and the opportunity afforded for preparation. They form a continuum from sequenced appointments with the conversations based on a pre determined protocols and then recorded to brief random exchanges held in public spaces, with notes made after the interaction. In most cases the critical data has been mined

through the use of structured and well prepared interview protocols formally arranged with key participants.

3.4 Interview protocol construction and preparation

The interviews form the backbone of this research process and raise three important issues. First there is the issue about the range of varied interview situations and their positioning on a continuum of formality. Second, there is an issue concerning the role of the interviewer as the project developed. Third there is the issue of protocol construction as an anchor within an interactive situation.

In terms of the varying structure of interviews Merriam (1998, p.72) indicates that interviewing not only enables access to thoughts feelings and desires, but provides an avenue to the past, that provides better, more and cheaper data than other method, In fact, often this is the only method of gathering rich data. Merriam (1998, p.75) supports the use of **multiple forms** of interviewing such as those used within this study for exploratory research purposes. Patton (1990, 226) identifies that in more ethnographic studies where the researcher becomes embedded within the organisation, participant observation is 'necessarily a combination of observing and making formal interviews'. In the case study phase of this study the research interaction moved towards an ethnographic engagement with workplace practice as relations with the case study developed. This engagement included a wide range of interviews, from the formal to the conversational. Merriam (1998, p.72)) suggests that interview structures can be regarded as a continuum and stretch from the formal, highly structured interactions where questions are predetermined and the performance is more of an oral survey, to informal , unstructured interactions that are flexible, exploratory and resemble conversations. This study collected data from multiple interviews that are spread across such a continuum.

In terms of researcher role Patton (1990, p.279) insists that the quality of data gathered depends on the capabilities and discipline of the interviewer who becomes a 'participant observer'. This was the subject of many supervisor/ student discussions to develop personal capability as the researcher became the primary instrument of the study.

However, developing a robust protocol was an additional method of building research reliability into the study. Patton (1990, p.218) discusses the inevitable mutual interactional environment that the researcher is placed within which is far from the neutral observer role trying not to contaminate the field of practice. The researcher minimised leading interview participants but recognised the benefits of using contextual data to help interviewees explore additional organisational issues.

The study followed the direction given by Miles & Huberman (1994) and Hussey & Hussey (1997) to assemble suitable interview protocols. Constructing the protocol started with a literature review, conducted to identify the existing issues, theoretical models and case studies related to the subject from which to develop issues for the protocols to steer the interviews. The in-depth interviews were designed to be 60 minutes long and conducted to gain a qualitative, deeper understanding of the existing issues and perceptions held by individuals. They were designed to both explore the current meaning of online learning and the potential options for the future. The interviews questions were guided by the theoretical framework and intended to extract a rich depth of insight from the participants. Examples of primary questions include – “Describe the culture learning behaviours existing at the DPI?” A listing of research question is contained in Appendix Three.

3.5 Data Collection

The in-depth long interviews, organisational document analysis and observation was carried out over a year period due to the researcher taking on a full time managerial post. This extended the original time scale. The data collection period was maintained as cohesive interaction with the organisation. However, the production of the report for the organisation took priority over this academic recording of the project and the analysis of the data for this thesis was carried out over a far greater extended timescale than originally intended when the researcher was able to work full time on this study.

Table 2: Intended data collection schedule

2002/3	Dec	Jan	Feb	Mar	April	May
Narrative Exploration						
Data Collection						
Analysis of Results						
Write Thesis						
Submit Thesis						

The in-depth interview provided 7 formal transcribed conversations that produced more than 50 thousand words for analysis. In addition, there were a number of other informal conversations that provided phrase and notes to augment the formal interviews. The researcher used the interview protocol to maintain some degree of uniformity between the interactions. However, due to the diversity, spontaneity and focus of informants' responses, the interview transcripts varied in their content. In an aim to ensure internal validity, the study triangulated the sources of information. Each interview provided responses that extended the scope of the next interview and provided issues that required further exploration. Responses to questions often generated further questions. A summary of the key material gathered is placed in the following table.

Table 3: Summary o nterviews held at the DPI

Name	Position	Location	Length
Gordon	Project Manager	WDU	1 hour x 3
Michelle	HR Manager	HR Dept	1 hour
Maria	HR Officer	HR Dept	1 hour
Pauline	Snr Trainer	Licensing Division	1hour
Shona	Trainer-Systems	Licensing Division	1 hour
Julie	Trainer	WDU	45 minutes
Lynn	Snr Trainer-Policy	WDU	1hour

In total there were over 200 pages of record obtained for this thesis consisting of internal statements and external public statements. However, there were a few key documents that acted as guideposts for the analysis process as listed in the following table.

Table 4: Summary of Key Records obtained

Documents
1 - Vision and Mission Statement DPI
2 - Annual Plan DPI
3 - Strategic Plan for Performance Development Planning
4 - The Strategic Learning Framework

3.6 Data Analysis

Merriam (1998, p.56) suggest that the collection of data and analysis is a simultaneous process in qualitative research. It is impossible to collect data without finding patterns emerging within the researcher’s head.

The integration of analysis with other tasks distinguishes a qualitative design from tradition , positivistic research. A qualitative design is emergent. The researcher does not know ahead of time every person who might be interviewed, all the questions that might be asked, or where to look next.....Hunches working hypotheses , and educated guesses direct the investigators attention to certain data and then to refining or verifying hunches. The process of data collection and analysis is recursive and dynamic.

Merriam (1998) perhaps provides a realistic account of the analysis process reminding us that it is impossible to collect data without conceptualising, and that the two processes in research reality flow into and out from each other. This framework for the analysis was drafted at the proposal stage but left open so that it could be directed by the voice of practice (Yin 1994) So that during the data collection process there would be an iterative

relationship between the data, research questions, protocols, and subsequent analysis and conceptualisation (Eisenhardt 1998).

In this study the analysis consisted of a search for local variables and an attempt to map relational patterns that existed within the field of practice. Although the analysis process was not designed as an explanatory process, the study aimed to improve understanding by illuminating the variables perceived to be most visible in explaining the phenomenon. The study acknowledges the local nature of the variables and complexity of the causality in the relationships examined. This analysis process falls into distinct phases of sorting, reducing, and then searching for themes and linkages. The phases of the study have been constructed from reviewing 'grounded theory' approaches to analysis but the process does not purport to produce a grounded theory (Strauss and Corbin, 1990/4/8).

First, the data was sorted and file notes, transcripts and hard copy data was moved to an electronic data base. Second, this data was coded to highlight key phenomena. The previous examination, categorisation and tabulation of the data actually represent the initial stage of the analysis (Yin 1994). This initial phase of the analysis process involves a review of this data, to immerse the researcher in the evidence so that the subsequent phases of analysis can be formed.

Third, the data was woven into a narrative account for the findings chapter. This process consists of a broad familiarisation with the data and the presentation of the evidence as an empirical descriptive largely narrative overview of the field of practice. Primarily this involved repeatedly examining the statements expressed by the participants. However, this also involved examining informants' discourses in relation to the instructional goals, rationale for use of online learning and generation of learning outcomes. The interviews were examined to consider the prosody, lexicalisation, cohesion, structuring and positioning of the themes alluded to by the participants. Barratt-Pugh (2004) and based upon the work of Fairclough (1995), Janks (1997), Luke (1995), Palmer and Hardy (1998/2000) and Gee (1999).

Thus the analysis both accounted for what the participants said, but also for the way they said it. The analysis therefore both operates at the level of accepting the voices of the participants but also at the level of interpreting hidden meaning or even unconscious values. Huberman and Miles (1994) indicate that observational cues are important because they can be used to locate the difference between participant discourse and subsequent actions. The participant's discourse needs to be read within a context. The analysis now moves from a descriptive to a conceptual level. Miles & Huberman (1994) indicate that each case or data set should first be treated as a bounded entity and then when concepts have emerged, and only subsequently be subject to cross case analysis.

Fourth, this data was then explored as a thematic analysis to tabulate key issues and their relationships. This phase involved reviewing the strength, prevalence and spread of the emerging themes and patterns and comparing them with the original conceptual framework and current theoretical models. This processes isolated the more enduring themes (Yin 1998). The emergence of these patterns was incremental, and relied upon a recursive relationship between researcher hunches and field evidence.

Finally, the research objectives and questions were addressed to form key statements of the meaning emerging from this study. The analysis process therefore adopts a realist stance described by (Miles & Huberman, 1994) and aims to increase understanding of the phenomenon and build theory clarifying it from a grounded position. The analysis also included a review of the research method so that the most salient learning and recommendations could be repeated within the final conclusion to the study.

3.7 Limitation of the Research Design

There were a number of limitations that *governed* the design of the research project and also there are limitations which can be *recognised within* the resulting design.

The central aim of the research in studying what was actually occurring in the field within organisations presented the research project with a vast population for potential study. The study needed first to circumscribe what sample of this population was accessible

geographically, acceptable within the given timeline and affordable within the financial constraints of an honours research in practical terms. This text recognises that reducing the scope of the study to a *single organisation* reduces the generalisability of the research, and that focusing upon a specific type of government based organisation reduces the width of interest in the study. However, in terms of the context of this study the focus on a single organisation has enabled the study to gain deep data where a broader sample would only have offered surface data. In addition, this was a large organisation that actually provided a wide range of departmental sub sections that spanned commercial, regulatory and strategic domains of business. Indeed the organisation provided pools of practical and knowledge workers in engaged in very *different work practices* and with very different learning needs. The study, was however restricted to *Perth and the surrounding conurbation* for the purpose of data collection.

The study was limited in the extent of *sample size* within the organisation. The financial limitations of the study mean that expense in terms of travel and the cost of instruments rose proportionately with the sample size in the study. The data was therefore restricted to the urban locations of the organisation. Consideration was also given to the time allocation that was reasonable for an internally assessed Honours project. Resource limitations also placed an overall limitation upon the *longitudinal nature* of the data collection although in this case the data collection spanned a period of nearly a year. It was not possible to extend the project to monitor the developments that were taking place within the DPI with online learning at a later date.

The study was also limited in relation to the use of a *sole novice researcher*. However, a sole researcher adds to the reliability of the data collection and the project was instrumental in developing research capacity and indeed the confidence of the researcher to gain a full time managerial position during the study.²

² Ironically this development exacerbated the completion of this thesis.

3.8 Ethical considerations for the study

This study was presented to the School of Management in a proposal seminar and given local ethics clearance as it was a study that did not involve experimentation, minors or animals. The presentation highlighted three specific ethical considerations; informed consent, confidentiality, and supporting participants reflecting on negative experiences.

The data collection at each site was designed to be a process that was agreed with each manager and participant. Participants were given the choice to participate in the study and were able to withdraw at any time from the interviews. This process was based on the form presented within Appendix 4.

The research design was constructed with the assistance of a number of parties in the field and acknowledgment has been made of their contribution to the study. However confidentiality was agreed with all participants and this has precluded specific acknowledgments. In this thesis the names of learners are only known to the researcher and have been recoded for use in this study. Containing the process within the control of the principal researcher enabled such confidentiality to be maintained. All data associated with this thesis used pseudonyms to protect the identity of participants, was kept securely during the project with the data being destroyed at the completion of the thesis.

There was always a slight possibility that reflecting upon learning experiences might illicit disturbing memories. The researcher was aware to abandon the interview if such a situation occurred and support the individual, referring the issue to the academic supervisor to arrange counselling should such action be necessary. At no time during the study did such a situation occur.

3.9 Reliability and Validity of the study

A review of the reliability and validity of the data collection and analysis process indicates a number of important considerations that have been successfully operationalised by this study.

In terms of *reliability* the study used the same *researcher and the same protocol* for the central data collection process to ensure a uniform approach to the participants. All the research was done by the principal researcher and included written scripted briefings for the guided discussions prior to the administration of the instruments. This was done to remove the opportunity for *personal bias* and to ensure that there was consistency in the data collection process. The use of the same researcher for all processes of the data collection ensured the *reliability and consistency* of results by offering in general a consistent observation, session control and data recording process both throughout the time period and within each layer of the practices being investigated.

The strength of this research method is that the collection of evidence from text and visual cues *triangulates* and contextualises the discursive data from the interviews to ensure *internal validity* of the analysis process. The analysis process was based upon a series of progressive analysis that produced a visible audit trail through the data analysis process. In addition, the analysis was based upon data from a variety of participants from different levels in the organisation with different perceptions of the organisational culture. The data was also collected from two distinctly different departments within the organisation. Finally, different forms of analysis were made on the same data during one of the phases of the analysis.

To ensure *content validity* of the interview protocol an extensive review of the literature was made to produce the conceptual frameworks at the start of this thesis which underpin the construction of the subsequent interview protocols. The instrument protocol was therefore constructed from a variety of source data to develop broad content validity.

The instrument protocol that was finally used therefore had no track record but was pilot tested prior to the data collection with two potential participants to maximise *construct validity* and to fine tune the questions and introduction to the interaction. This piloting ensured that the protocol was capable of eliciting the type of data that could be used to inform the study research question.

To ensure *face validity* of the interview protocol, the protocol was developed through a cooperative relationship with the organisation to ensure that it ‘made sense’ to participants.

The use of a sole researcher could be a disadvantage in the analysis process where personal bias could be introduced. To prevent such bias two actions were taken. First, the analysis process was reviewed by the study supervisor to mediate bias. Second, the final analysis was presented to the organisation as an industry report before this thesis was written so that organisational feedback could be obtained. This helped ensure face and content validity of the later interpretive processes.

3.10 Summary

This chapter has indicated the key components of the research design and how the design was operationalised. This research project is a field study based upon a purposive and revelatory embedded case study. While this text acknowledges the limitations of a single case study for broad generalization this project has grasped at a unique practical opportunity to gain deep access within a major organisation for what is both an academic study and also an informative series of recommendations for the organisation.

This section has indicated how the protocols for the study were developed through pilot activity, displayed the process of data collection and indicated the broad phases of the analysis process. The next chapter will provide a condensed overview of the data collected within the organisation. At this stage the voices of the participants will be allowed to speak with interpretation of those voices reserved for the subsequent chapter.

CHAPTER 4: FINDINGS

4.1 Introduction

In this chapter, the information gathered from the interviews is presented in narrative form. The interviews aimed to identify the beliefs and values of a cross-section of members about the application of on-line learning at the DPI³. The informants' discourses driving their beliefs are examined by the manner in which they communicate their beliefs. Additional questions are used to prompt the interviewees to address various aspects of the research.

In order to capture the richness of the perceptions of the interviewees and to support the narrative, quotations are used. Bracket insertions are used to clarify words and additional questions asked by the researcher.

The information gathered is categorised into the coded *research objectives* described in the theoretical design. The codes represent labels for each of the themes. The roles/locations of the informants are stressed where there is diversity or polarisation in the data collected.

4.2 Research objective 1: Interrogations of the Dialectics of Learning

Corporate Governance and Discourses

The impression that informants provide is that the DPI's corporate discourses are synonymous with the PSA corporate governance guidelines established by the Ministerial Planning Committee of the Portfolio for Planning and Infrastructure. The informants continuously highlight the DPI's legal obligation to comply with its corporate governance guidelines. The informants recognised PSA corporate governance as a significant factor in the positioning of their professional identities.

“Government agencies have to comply ... We are public servants – our jobs are to serve the public. The way we operate is largely dictated by the Government of the time and the way they want to governance us.”

³ Appendix 3 contains the interview protocol used for this study.

However, within the context of corporate governance, the belief was commonly expressed that some sections of the DPI have scope for being innovative.

“Government agencies have to comply but how they achieve their outcomes whilst complying with their statutory responsibilities is up to them-there is scope for innovative programs...particularly the planning areas, they are a lot more lateral and creative because they have got the opportunity to plan out strategies for 10 to 20 years.”

The following extracts form the DPI's 1999-2001 Annual Report, articulates corporate strategic objectives and key performance indicators believed to reflect current political discourses. These discourses include - focusing on “efficiency”, “cost-effectiveness” and “productivity”.

- “Transport *Efficiency*: transport links and terminals that support development, growth and efficiency” ... “a coordinated transport system that embraces total transport and community needs” ... “integration of land use and transport policies to support transport *efficiency and effectiveness*. “
- “Policy making and Planning: The extent to which *efficiency* for policy and planning service is achieved.”
- “Infrastructure Development and Management: This output involves ensuring and facilitating the development and management of infrastructure to support the provision and use of transport services.”

The informants expressed views describing the current change program's focus on improving the DPI's structural efficiency, cost effectiveness of processes and productivity of staff. The change proposals are believed to involve restructuring and associated changes to the organisation vision. Informants identified the need to support affected staff in adapting to their new roles in the “new organisation” as the primary focus of leadership and strategy.

“It’s important for Transport to develop the skills mix to enable our employees to adapt to whatever new situations they find themselves in—that’s they are concentrating on the level 1-5. We see them as the building blocks of our future managers as they develop—a percentage will take on supervisory roles, they will go on to act in other roles and slowly move up with transport. So its important to have those core competencies, core building blocks in place and to build on ... They are receiving personal growth and the organisation as a whole is growing in organisational capability.”

A prevalent term used and one believed to be a corporate discourse is “innovation”. Informants believed that leadership paradigm valued knowledge/service when it was innovative and judged to result in improved performance (Performativity). To that end the Leadership paradigm is seen to promote diversive behaviour when it was seen to be Performative.

“The DG recognises innovative contributions people have made to performance or that supports the organisation.”

The Leadership Paradigm

The view held by training planning managers is that senior leadership’s championing of learning values and beliefs is influential in shaping the values and beliefs of all leadership throughout the hierarchy. In effect, shaping the Professional Identities of the DPI’s Management.

“It [our leadership paradigm] depends on the Director Generals ... (S) Whatever their mind-set may be, will be modelled by senior managers and everyone else is supposed to just pick it up from there.”

The view is presented by the HR manager that the HR Director promotes both compliance and creative orientated learning goals.

“Yes, we’re a fairly strategic [innovation orientated] HR Department and our director has certainly got a big commitment to staying that way. Probably fifty-fifty at the moment – 50 percent operational [compliance orientated], 50 per cent

strategic [creativity orientated]...And there's support from management [Corporate Services Division] for that. The fact that she [HR Director] has got an online support position in HR, is testament to that [support for online learning]."

However, a common view described the difference of respective Divisional Directors' championing of learning norms.

"Leadership support, is mixed [throughout the organisation]. Some areas such as the Workforce Development Unit have some commitment to learning creatively and online; and there are other areas like the Licensing section that just get very caught up in the operational type learning and people basically have to sink or swim."

The Power Coalitions

The findings indicate evidence of the existence of two learning power coalitions - labelled the "Anti-change" coalition; and the "Pro Creative" learning coalition. The informants' responses indicated that these coalitions were made up of various managerial levels and professional identities. Professional identities within the Anti - change coalition are believed to be aligned with compliance values promoted by corporate governance & discourses. However, they have been labelled "Anti-change" because they are believed to be non-complying with HRD plans promoting "innovative" learning practices. This coalition is positioned in opposition to the "pro creative" coalition. It is clear that the informants placed staff in this coalition if they questioned and resisted the need to adapt. Particular staffing types placed in this coalition include middle management non-complying with their training requirements and IT staff circumnavigating employee empowerment initiatives in the management of technological processes.

Professional identities within the Pro-innovation coalition are believed by informants to be aligned with corporate discourses seeking to promote innovation and improve staff's performativity. This group is believed to hold learning values and beliefs disposing them towards innovation within the context of corporate governance & discourses. The

coalition is believed to be comprised of HR executive, HRD practitioners and line staff. One main identity aligns itself primarily with corporate objectives and another acknowledges the personal and growth needs of learners. HRD practitioners exhibited varying degrees of both identities.

4.3 Research Objective 2) The organisational learning agenda and the dominant values and beliefs regarding learning

This section addresses the DPI's learning agenda. Specific focus is given to the prioritisation of values and beliefs regarding learning. The nature of these learning agendas/goals is examined firstly, in terms of compliance, control and limiting risk; and secondly, in terms of creativity, support for change, innovation and risk taking.

Values of Compliance, Control and Risk Limitation

The informants perceived that the organisation must comprehensively improve the compliance, governance and accountability of its managers.

“We simply have to have managers managing more effectively and that covers a multitude of areas, from compliance through to governance, accountability, roles and responsibilities.” “I wouldn't be surprised at the end of the day for affected managers that there isn't a tool kit for affected/effective managers in respect of their departments that they go through and say, “Are the policies and procedures in place? Are they up to date? Because they are the things by which the rest of the group work, by which we send the standards. It's the way things get done. Are they all in place? If not, that's the first port of call. Secondly, are accountability and risk management aspects reflective of what the organisations aims for? Are they in place?”

The HRD Manager believes middle manager non-compliance represented a significant barrier to the implementation of organisational cultural change programs.

“Then also in terms of training ... I would like them [divisional, line managers] to be more compliant for a couple of reasons. One is where you're trying to get information and you're trying to get behaviour change [learning cultural norms]

and skills up, you sometimes want to do that for a critical mass so that you've got corporate and cultural change. When people are just coming because they feel like it, because they can be released or someone can afford to pay, you're not going to get that equity in access or that common outcome, which is a real problem."

Values of Innovation, support for change, innovation and risk taking

Senior Leadership has expressed a commitment to innovation.

"Leadership support, is mixed [throughout the organisation]. Some areas such as the Workforce Development Unit have some commitment to learning creatively and online...

"Yes, we're a fairly strategic [innovation orientated] HR Department and our director has certainly got a big commitment to staying that way.

Informants expressed beliefs that innovation orientated learning goals are valued by HR leadership but are currently secondary to other priorities currently occurring.

"We would like to promote purely constructivistic learning but haven't got the depth of skill level [staff and instructor] currently - There's lots of other priority areas. The whole idea of a learning platform for the DPI will come further down the track. "We see online training not as taking over traditional training but to being an additional option that best suits curriculum delivery, providing special functions and flexibility of access outside traditional training hours... We are looking at embracing those [online learning opportunities] to complement in the initial phase of the training - not replacing it.

Summary

The findings demonstrate evidence of the existence of Compliance and Innovation learning values. There is common mention of commitment to innovation but this is seen as a secondary priority and located within a performance-based, corporate governance context. There is little to demonstrate planning for engagement in purely transformative learning goals.

4.4 Research Objective 3) The Visible Learning Curriculum: HRD plans and discourses

This section interrogates the formal HRD discourses and plans legitimising the learning agenda. Specific focus is given to the curricula and how this is orientated towards supporting Transmissive, compliance learning goals and/or Transformational, innovative learning goals.

HRD Discourses

Examination of the interview transcripts indicates that HRD practitioners commonly employed the following discourses: “corporate strategy”, “governance”, “compliance” and “self development”. Other re-occurring terms used include “empowerment” and “innovation”. It became clear that that term “strategy” was used interchangeably with the words “governance” and “compliance”. This creates the impression that these terms are aligned and denote similar meanings. The terms were commonly stated in declarative tones indicating an adoption of its finality. This position was adopted and the speaker often addressed behaviour, practices and culture from this position – sounding like a rendition of formal strategy statements. There was a lack of questioning and a lack of visibility of concepts challenging this position. The discourses of HRD practitioners at the DPI are believed to be highly aligned with corporate governance and discourses.

Usage of the term “employee empowerment” was often associated with improvement to work processes and innovation. It sometimes denoted learners aiming to develop themselves and sometimes was used in relation to job satisfaction. “Innovation” was often associated with change that resulted in improved performance. The tone is more questioning and guarded. These terms were used more cautiously. They were often used in sentences addressing learners’ goals. This is interpreted as positioning it with both corporate governance and the needs of learners.

The HRD Learning Plans

The WDU is seen to adopting the following formal plans – The Strategic Learning Framework; The Strategic Plan for Performance Development planning; and online learning practices.

In reference to the Strategic Learning Framework contained in Appendix Four, the findings articulate the role of HRD planning in aligning staffs' learning and development practices to future corporate performance requirements. The Strategic learning Strategy is seen to involve responsibility for training planning and management devolved to the workplace. This is seen to involve workplaces conducting training needs analysis with strategic skills audits; and administrating training via Service Level Agreements.

The Performance Development Plan (PDP) contained in Appendix Five, articulates a goal of incorporating the PDP process in performance management and training planning. It is stated that the PDP cycle aims to achieve continuous improvement to job performance. This involves assessing staff performance by 360% feedback methods, identifying strategic performance indicators, identifying the skills needed to meet the performance requirements and registering for training and development courses.

It is stated that online learning practices will preliminary focus on supporting existing training of formal job skills.

“We are using combinations of offline and online training... We are looking at Online technology as a support for traditional training delivery PC skills and applications. IT training online for those who wish to use it as a refresher and whatever, and we are now setting up a permanent computer-based training room.”

Another reoccurring theme in the findings is the goal of improvement of training monitoring and accountabilities.

“We simply have to have managers managing more effectively and that covers a multitude of areas, from compliance through to governance, accountability, roles and responsibilities.”

In the near future goals aim to use online learning in the Strategic learning the PDP learning objectives.

“We're looking at getting PDP on line. It's a learning strategy for assisting people with their own learning in that context. It's a strategy for assisting management of training. We are trying to encourage staff to become proactive in determining what they have to do to develop, to be able to do their job in the future. They'll engage in learning modules and follow development paths. With online training, computer-based modules...It's taking ownership of their own learning; whereas prior to that they had been restricted in – I'm sure that they had been on different training courses and so fourth”

“It's up to staff. If they want to do additional voluntary online training they can. But it also aims to guide them along a career/skills path Self-management for staff along the lines that. The responsibility then becomes theirs and their managers for their development and they're getting constant feedback.”

“We are trialing a study on online learning which involves PC-based modules [CD ROM] focusing on the skills and tasks in staff's job descriptions. This will involve a number of levels where learners are assisted by instructors in the first three levels and then in the 4th and over they will manage their learning themselves with regular mentoring by instructors...The first levels will focus on their PC skills development and higher levels will focus on their job and other generic job skills.”

“What will happen there is it'll be online for the whole organisation and if there's 15 of them they'll come in for a one-day course with us, which will explain to them that – there might only be a morning online. They may even talk to their lecturer online if they don't get in. But we have a feeling that to put a name to a face first and just explain how the programs work and how the programs are monitored and evaluated and how we do the pre-assessment before, is better done right there. It can all be done in a morning. Then they can shoot off and they can enter it. They'll be given a password and they'll be given online access to it and they can work at their own pace.”

Summary

The findings identify prevalent HRD Discourses and Formal HRD plans existing at the DPI. The HRD discourses and HRD Plans appear to reflect one another in the pursuance of common learning goals of Compliance and Innovation within an organisational learning agenda. The formal learning goals show evidence of facilitation of transmissive learning approaches and the completion of designed learning modules with predetermined learning outcomes. The most prevalent learning goal identified is the improvement of compliance with pre-formulated policies and processes. The term “self-directed learning” is mentioned in regards to Learning Module 4 of the proposed online learning package. However, the learning material of the package focuses on transmissive learning goals such as computer skills and again is instructionally designed to produce a predetermined outcome limiting the degree of independent appropriation of learning by the learner.

4.5 Research Objective 4) The Invisible Learning Curricula: Reinforcement of Cultural Values and Beliefs Regarding Learning In the DPI's Culture.

Local Leadership Attributes Reinforcing Learning Values, Beliefs and Norms

This theme focuses on how local leadership embeds values and beliefs regarding learning in terms of the cultural embedding mechanisms described by (Schein, 1995). This study pursues the reasoning that leadership has an inclusive relationship with organisational culture and structure (Gardner, 2001b). Leadership's role in legitimising learning practice is seen to involve utilisation of these other attributes. Respective Questions in the protocol – leadership's allocation of resources for learning practices, leadership's recognition and reward of learning practices; role modelling of learning behaviour and leadership's reaction to critical incidents regarding learning. The data gathered is presented in each of these categories.

Leaderships observance of Learning as a criterion for resource allocation

A reoccurring response was that across the organisation that learning and training practices are provided with a relatively limited budget. Creating the impression that it is of limited value and placing it low on the learning agenda.

“Learning is valued but it is always an area that is, anyone in a training development unit will say that whenever the budget is tight, training is always seen as the most disposable area.”

A common view presented by informants regards the reluctance of senior leadership to invest more money into new learning practices such as online learning. Creating the impression that it is of secondary priority in relation to other funding priorities.

“We have had some brilliant ideas [regarding online learning and self development] but because of lack of resources and other priorities, none of have been particularly put into place. “We sold that [strategic plan regarding online learning] out to corporate executive, who endorsed it... But at the end of the day they didn't support it with the dollars.”

Senior leadership's norm of limiting resourcing for training practices is modelled down the hierarchy in middle management levels.

“When you have a government organisation, you get these dyed in the wall people [middle management] that say – we need training but we'll only allocate 25% of our money, our funding”

“Virtually all managers [divisional & branch managers] now see training and development as an area they can cut so out of 25% back and slice if their budgets are being threatened or there has been any cuts.”

The view is presented that line managers have been influenced to address training for their staff as a secondary priority area

“Training has always been seen as something that's not high on their [branch managers] agenda but that has come from above. It's always been I can't afford to let you go, I've got shortages.”

”Training in Transport its a user-pay basis so all the different units have had their budgets cut currently so they are currently looking at what training they will go to and what training they won’t. The support is there but currently it’s a difficult time with the budget cuts and restructuring.”

“Because of the shortage of staff and centres or the flexibility to go on-line and learn or they are not encouraged to”

Concerning leadership’s rewarding of creative, Transformational learning behaviour there is a variation between the WDU and the Licensing Division. A common response was that in the WDU senior leadership promotes and valorises learning deemed to be innovative and performative.

“There is the Director General awards which recognises people (units) who have contributed significantly to the organisation. He recognises contributions people have made to improve performance or that supports the organisation”

In the Licensing division and on the line, the findings indicate that a lack of reward and recognition for learning activities by senior leadership The view is presented that branch leadership demonstrate a lack of recognition for learning practices. One example is the limited practice of seconding staff who have undertaken professional development.

“Some staff do training and if other people go on holiday, they can act up, be seconded in their position... at the moment this isn’t happening.”

Leadership Modelling of Learning Behaviours

Concerning leadership’s modelling of learning behaviour the WDU and the Licensing division differ. In the WDU the view is commonly sited that front line managers model innovative, transformational learning approaches, promote change, challenge the status quo and taking risks.

“You’re encouraged to generate initiatives, take risks, if it works, if it doesn’t then it doesn’t. But you are encouraged to take on developing things in a different way. Your supervisor installs in you that is a value of learning.”

The view in the licensing division is that branch/line managers demonstrate modelling of compliance, Transmissive learning behaviours. Leaders are not believed to embrace change and risk-taking.

“Licensing runs on rules and regulations ... The hierarchy itself is so constrained and there are so many controls [job role demarcations] built into it ... It's a very controlled system.”

“It's a case of educating them [Divisional & branch managers] so that they become effective managers in being able to promote appropriate processes and strategies to assist individuals who want to actually develop their own learning”

However, this view is contested by a line manager/trainer who claims to facilitate self-development and online learning

“I'll try everything-that's what change management is all about ... I have taken a couple under my wing in this office to test it and it's worked. They get in there now they love the new system they love the freedom they get with the PC like getting email, just little things but its huge to them.”

Leadership's Reaction to Critical Incidents Regarding Learning

In the WDU a common view is presented that leadership encourages diversity and staff's risk taking.

“You're encouraged to generate initiatives, take risks, if it works, if it doesn't then it doesn't. But you are encouraged to take on developing things in a different way.

In the Licensing the view is presented that leadership has traditionally reacted negatively to any performance diverting from the status quo ways and reinforces a culture of covering up mistakes.

“Covering up mistakes has been inbred [into the culture] so you've got that to deal with it.”

However, trainers are encouraging staff to express their mistakes

“I say to them, “You should always encourage complaints from your customers,” because -Because how can you ever comfortably or truly assess any sort of competence service level if no-one ever complains to you to let you know where you're not doing that.”

Leadership is seen to affect culture in the following secondary embedding mechanisms- Structure and job design, physical environment and work processes; Formal strategy, Rites and Rituals, and formal statements of organisational philosophy. These are covered in the sections of structure and strategy.

Local Structural Attributes Reinforcing Learning Values, Beliefs and Norms

This theme aims to examine the local structural attributes reinforcing values, beliefs and norms of learning. As stated earlier, structure, culture, leadership and strategy are believed to be inclusive. This theme examines how A) Structural and Job Design; B) Systems and processes and D) staff's attributes, shape cultural learning values, beliefs and behaviours. The data is presented in each of these categories.

Structural and Job design

A reoccurring view is that the structural layout of the DPI is perceived to provide limited facilitation of self-development/online learning culture. The hierarchy of managerial levels is perceived to cause complacency

“Particularly in an organisation like this there are very set, subtle little levels and there are people out there as you know they are happy to stay where they are.”

A reoccurring view is presented that the structure and the amount of seconding promotes norms of change avoidance where staff use the carrying out multiple roles make excuses that reduces their responsibility for the requirements of the role.

“The structure in government is kind of really restrictive as in going from level 1 to level 3 and upwards. To me, there are too many levels where you need to actually get a job and there's too much of this “acting” because someone has got

this job but they're doing something else, or they've got this job but never ever intend to do it because they're doing something else, that's their security.”

A common perception exists that the organisation structure is hierarchical and causes resistance to change.

“I think it kind of gets pushed down from up, and certainly there will be some supervisors, etc, that even I know of, that are pretty much negative, or not into change.”

The reoccurring response is presented that the excessive levels of management impose a high level of regulations and rules and limits the scope for flexible job roles. Staff are not allowed to undertake tasks outside of their job descriptions/skills sets and engaging in action learning and competency development. Promotion is seen to be related to length of service, not to competencies

“The system [Licensing operating system and hierarchy] itself is so constrained and there are so many controls [job role demarcations] built into it that there are only certain things staff are allowed to do... There's this whole hierarchy based on where you are in the system, not based on your competence but based on your level. It's a very controlled system and there are some things that only two people in the whole of licensing know how to do.”

A reoccurring view expressed is that in the Licensing section, IT staff, middle managers are trying to maintain their power in the new IT Operating System – Trellis that has an in-built Help function. It is argued that IT staff are aiming to maintain their role by building controls into the new administration system.

”...“It's not really the top that are the problem and we down here aren't the problem; it's kind of the middle – there's a barrier somewhere in between. Because at the top they depend on people [IT staff] who are experts, etc.. and then at some stage that expert sometimes makes – well, I guess that's what is happening with Trellis ...there's this whole group of people [IT experts] that are sitting there who really don't know whether they're going to have a job in the new

world... We think that they [IT Experts] are going to put in some of the controls they have got now.”

Technology & Office Space

The findings indicate varying responses from the WDU and the Licensing regarding the provision of resources for learning practices. The view is presented that in the Licensing section the existing technology has limited staff's competency in using PCs. The functional inflexibility of existing technology is believed to limit users' ability to innovate their work processes and has shaped learning norms towards a Transmissive, non-personal, non creative approach.

“What we find there is that the technology that is used is [in the Licensing section] what we call “Dumb Terminals” ... they [customer service staff] have got a terminal there and they work through a process; they've been taught how to work through that process but if you take them out of that process they don't know how to use a computer...they've been caught up in that sort of environment; the technology was purely there so they could do the job. They never learnt from it, never learnt a single thing from it whatsoever...It has shaped their learning that way.”

The view is presented that in the licensing section the office layout is cramped, loud with much visual and noise distraction and little privacy for staff and that this reduces staff's ability to engage in online learning.

“The other issue around an operational area that has got customers sitting in front of them is how they're going to sit there and do online learning and there's a customer irate about not getting served?”

Learning Systems and Processes,

Informants expressed a view that the existing management of training planning evolved from planning being conducted on a piece-meal basis, to one linked to performance requirements of work areas and the overall organisation.

“We used to use a systems checking needs analysis that would identify maybe 10 core training requirements but its not divisional focussed,-where the training Dpt would say we’ll do something on computers, leadership skills, -then a training calendar but it may not suit the divisions specific needs differences in core needs. Now there is a more focused approach where the divisions understand their core businesses and they understand what they need to be able to supply their core businesses and their demand-so we are saying we’ll give you support in your PDPs ... The actual training has always been determined by the workplace requirements so it’s the workplace that identifies the demand-in the past based on training needs analysis, now it will be carried out through the cycle of PDP, additional training requirements, service level agreements.”

The view is presented that training planning is carried out by branch managers in conjunction with the Corporate services division separate from the line where the tacit knowledge is possessed and as a result unreflective of real job requirements.

“I think it has to be for them [line managers] to say – “hey guys what would help? What would make it better? But no-one ever asks those questions. It’s always on the assumption- so we’ll sit and discuss what’s is good for someone else’s training but we won’t go to that person and ask – “What do you want to learn?”

The view that is presented that in the licensing division work processes are highly regulated, and provide little employee initiative and innovation.

“Manager is a title, the whole concept. We are a department that runs on rules and regulations.”

“The system [Licensing operating system and hierarchy] itself is so constrained and there are so many controls [job role demarcations] built into it that there are only certain things staff are allowed to do...It's a very controlled system and there are some things that only two people in the whole of licensing can do.

Staff's Attributes

A common view presented in the findings concerned the low level of staff's competencies in PC operation and online learning. It was perceived that lack of previous PC exposure, age in general and educational history were attributable to this characteristic.

... If you look at the demographics of that 70, you'll find that they're all fairly mature age people... they haven't had that exposure to PCs... some of them don't even know how to get onto the Intranet to pull up jobs for promotion; they've never had that, they don't know how to send emails... Most of our customer service staff in Licensing have come from just out of school or from TAFE."

The DPI's Existing Cultural Learning Norms

A reoccurring view presented was that across the organisation there is a limited amount of formal training undertaken. However, this view is particularly prevalent in the Licensing Division.

"I [training coordinator] have been here [Licensing] two and a half years and, personal development training, I've done... I think is a true reflection on what they [licensing staff] have done... In two and a half years, I've had one [training course]"

"Currently they [Licensing staff] see training and development as a waste of time."

The view concerning motivation of staff in the Licensing Section is contrasted by a common view that in the WDU staff are motivated to attend training and develop themselves.

"I see all trainers in the WDU seeking to develop themselves... They have all undertaken "Train the Trainer" courses"

The questioning then focused in on the nature of the learning approaches engaged in. Respondents were given a brief prior to the interview that described the Transmission and Transformation learning approaches and outcomes. Any questions raised by the

informant were answered by providing examples in the context of the interview. Informants were asked to assess the scope of their learning practices in terms of involving Transmission learning and/or Transformational learning practices.

A common perception presented was that across the organisation training learning predominantly focused on developing skills outlined by formal definition of job roles.

“The actual training has always been determined by workplace requirements so it’s the workplace that identifies the demand... in the past it was based on training needs analysis, now it will be carried out through the cycle of PDP, additional training requirements, service level agreements.”

However, this is contested slightly by WDU staff that view their engagement in action learning and team learning reflecting Transformational learning.

“There are opportunities for transformational, organisational learning in the work unit. We are constantly looking at different creative ways to keep the organisation on board ... to participate in learning opportunities ... you’re encouraged to generate initiatives, take risks, develop things in different ways ... it is part of the learning process- action learning, reflecting on what you’ve done and how can you improve it... We engage in group learning exercises with our colleagues obtain and offer feedback. You reflect, you refine and modify.”

A reoccurring view stated was that in the Licensing Division there is limited scope for engagement in action learning, challenging the status quo and risk taking.

“The system [Licensing operating system and hierarchy] itself is so constrained and there are so many controls [job role demarcations] built into it that there are only certain things staff are allowed to do... There's this whole hierarchy based on where you are in the system... It's a very controlled system and there are some things that only two people in the whole of licensing can do.”

But this is deemed to be changing

“... Licensing would have been compliance, compliance, compliance but with technology and only because of technology we can be creative and push change so it's getting people to think – Ok, we are in a regulated industry but because of the technology [the online helpline] we can make it easier [work processes better].”

A reoccurring view found was that staff exhibit the following defensive behaviours - non sharing of information, low admittance and covering up of mistakes, low deviation from the status quo.

“The whole control issue. You have people that have been around for, you know – some people have been 15 or 20 years and it's like, goodness, but they've been around for that long and over that period of time they have gathered lots and lots and lots of information, as you would imagine. So they are a walking information barrel. But with that information – they keep it to themselves because if we share it we could be toppled from our position and then where would we be.”

“So that [covering up mistakes] has been inbred, inbred, inbred, so you've got that to deal with and hence they cover it up.”

“... Licensing would be compliance, compliance, compliance...”

A strong response across the organisation concerned staff resistance to change in general. This entails addressing staff's fear of losing power, disruption to stable relationships, fear of new learning and systematic barriers. In particular middle management were seen as engaging in oppressive, pressuring behaviour, non compliance in regards to strategies.

“The hierarchy, causes a bit of complacency, a comfort zone, where staff are comfortable to stay the same.”

“Everybody is worried about change because it forces them out of their comfort zone... because of the change, restructuring, where people have had the same position for a long time having to suddenly to have to re-apply for it and learn all

these new thing... a lot of them [middle managers] are unsettled... they don't know if they are going to have a job in the new year."

"The other dilemma for this organisation is that the workforce development and the corporate development are split, so the WDU doesn't manage the organisational planning and the performance agreements for the executives... a lot of them think they know it all and they would rather pay for a glossy conference or an AIM workshop than come to something we run, and they think the external expert knows more."

"I know of a lot of staff who are really behind in carrying their management of PDPs... a lot of people just won't talk to this or that person because they're scared that the person will bellow down the phone at them."

Concerning resistance to online learning a common view held across the organisation was that staff have limited PC skills, limited experience with using PC applications and limited experience of online learning techniques.

"A Training Needs Analysis was done to determine who would have the skills to be able to do the new Trellis process and it has been identified it will be up to 70 of them that don't."

This fact is supported by a common perception of respondents being that staff fear online learning because of lack of confidence in online learning, mistrust of use of technology and fear of being disadvantaged by online learning.

"Many staff are scared of using PCs. They are used to Dumb terminals that have shaped their learning... Some people this on-line learning suits. However, some people need more social instruction when they learn."

"Many staff see the on-line stuff as a possible threat-who's going to be monitoring this [online learning activities and work performance]?"

A common response is that staff in the licensing appear to resist engaging in voluntary self-development; Performance Development Planning (PDP), online learning modules and collaborative learning with the "Talent Bank".

“Regarding the PDPs we currently have a very low uptake...about 5% of staff are really carrying them out.”

“The online training program [self-development modules] is put on hold for the next six months.”

“A few hundred people responded [to Talent Bank]... but it wasn't linked to any sort of staff register so if people moved the information didn't change...there is problem with some staff in specialised areas holding onto their knowledge.”

“People really get into bad habits of thinking it's their right to do it [self-development] at work. It's kind of - I'm not going to do it unless it's in my job... there's quite a few people who are like that.”

“Because of the shortage... staff are not encouraged to attend training. We used to an after-hours course where it would be a big effort to get people to stay.”

The WDU's Cultural Change Goals

The WDU are aiming to implement a strategy of behavioural change focussing on promoting an online self-development, PDP learning culture amongst staff.

We are trying to promote learning culture...as part of the change program focussing on behavioural change.

“The idea is that people take some responsibility for their own learning and that's it. We will support you with a view to having the strategic outcome of being a learning organisation and having a culture of learning within DPI further on down the track.”

An identified need is the need for middle management compliance

“We simply have to have managers managing more effectively and that covers a multitude of areas, from compliance through to governance, accountability, roles and responsibilities ...It's a case of educating them [Divisional & branch managers] so that they become effective managers in being able to promote appropriate processes and strategies to assist individuals who want to actually develop their own learning – in other words, “walking the talk”

Summary

The informants' views, display evidence of compliance orientated leadership role modelling; limited rewarding of transformative learning norms; lack of resource and time allocation for learning; and negative reaction to critical incidents. The informants' views suggest that this has promoted an already existing compliance orientated learning culture. Further evidence has been presented that the hierarchical, politically resistant nature of the structure and the highly demarcated and regulated job design further reinforces compliance orientated learning values. The informants' views describe licensing staff as possessing a low level of computer skills, low levels of motivation for learning; a low level of transformative learning aptitude and a high level of resistance to change.

In contrast the findings evidence the perception that the staff within the WDU possessed fairly good computer skills, good motivation for learning and a good capability for transformative learning approaches.

4.6 Research Objective 5: The Emerging Role of Online Learning Technology

This section examines perceptions and emerging evidence concerning the DPI's learning practices. This section aims to address the relationship between the organisational attributes, learning goals and rationale for online learning technology. This section addresses the emerging role of online technology and the information gathered focuses on evidence of orientation towards technology being used to result in Transmissive learning outcomes; and technology being used to result in Transformational learning outcomes.

This theme consists of two parts - evidence suggesting a role orientated towards facilitating Transmissive learning outcomes and evidence suggesting a role orientated towards facilitating Transformational learning outcomes.

A) Transmissive Orientation - Learning Role Opportunities

Informants believed that on-line training technology will be used because of its methodology functionalities, access flexibility and ability to improve pre-existing training methods.

“We see online training not as replacing our traditional training approach but as being an additional option that best suits curriculum delivery, for special functions and providing the flexibility to access training outside of traditional hours.”

The view is presented that online technology will be used for information dissemination and the transmission of knowledge.

“I [the WDU Manager] do see it [online learning technology] as a way of communicating out to all of the staff and specifically the managers.”

“We’re looking at 3 main areas for Online Communication - Managing change-a generic topic to refresh everybody about the change management cycle, targeted at senior managers and supervisors so that they are clear with the theory associated with managing change and understand how to manage barriers to change and the associated things. Supervisors will have to understand the implications of change i.e. different area, role group size, then they will have to determine the communication needed. There will be an area concerning “Governance”-accountability and legislative responsibility in respect to change of division, branches etc and in respect to their operational plans. The last one will be occupational health and safety.”

A commonly held view is that online technology will be utilised to improve managers’ skills in carrying out their statement duties regarding governance accountability and training management.

“We simply have to have managers managing more effectively and that covers a multitude of areas, from compliance through to governance, accountability, roles and responsibilities... “I wouldn’t be surprised at the end of the day for affected managers that there isn’t a tool kit [online] for affected/effective managers in respect of their departments.”

The view is presented that online technology will be used to develop skills of general staff in carrying out their statement duties.

“We're looking at getting PDP on line. They'll follow development paths and engage in learning modules online. Having PDP online for us, apart from being very cost-effective and efficient is a strategy for encouraging staff ...to develop, to be able to their job in the future.”

“People can access refresher courses [for job related skills] online.”

“HR is currently committed to the Public Sector training packages and may want to do certain things online, after work.”

The view is presented that online learning could be used as training monitor

“An idea is an online PDP Archive linked to staffs personal files. This would aid HR planning functions. If PDP was online, you could do a training needs analysis. We could access the PDPs, analyse them, pick out common themes, common issues and come up with effective reports; apply a relevant competency benchmark and identify the skills gap; and determine the overall training needs for the whole division. We could then compare this to Service Level Agreements from respective divisions and ensure compliance is met.”

B) Transformational orientation - Learning Role Opportunities

Informants believed that the move towards empowerment will allow staff to engage in transformational learning norms and make improvements to working processes using the new technology and its online learning capability.

“Licensing would have been compliance, compliance but with technology and only because of technology and that's the catch we can be creative and push change so it s getting people to think ok we are in a regulated industry but because of the technology [the online helpline] we can make it easier [work processes better].”

The view is presented that online learning technology will be used as tool providing learners with the ability to undertake self-development.

“The plan for online training is that we'll bring them in one morning and explain it [online learning modules] to them. Then they can shoot off and gain access to it

online and work at their own pace ... we're looking at being able to do stages one, two, and three, which brings people up to a fairly sound level in computer competency - and after stage three we will cut off; but what they will have access to, depending on their divisions and their divisional managers and so forth, will be a library of online training programs ... we'll see a more transformational approach to learning taken, where they're in control, they're reflecting on their knowledge and deciding what new information they need and what implications that presents. Virtually it's taking ownership of their own learning; whereas prior to that they had been restricted. Online training will be a tool to help people and inducing them into the culture, strategy, structure, etcetera, and then maybe it becoming like a facilitator, a manager who facilitates, like an intellectual partner.“

The view is presented that technology will be used to assist learners in controlling their own learning.

“The whole idea is to have – “personal learning portals” which virtually manages the interaction between you and the software. It tells you what training you have done, what training is available, what areas you should be looking at. It may have a chat line that is associated with particular subject areas. Instead of just the ordinary Internet portal coming up at the beginning, it's your personal portal. It has got everything you have done, it's got your PDP plan on there, it has got your Meeting Maker for your daily and monthly calendar scheduling, it has got your access to the Internet... It manages you and you manage it... I think we're probably a fair way off those but it's a case for us now of putting those foundation blocks in place upon which we can build. This is where we are now – and I think that's what where want to be with the PDP.”

The view is presented that a Talent Bank is created where staff can access each other and liaise on the Intranet and by email and represents a collaborative and action learning opportunities.

“The other exciting thing we got ... is an idea around a Talent Bank... The model we came up with was that the people filled in this form and said where they

believed they had strong skills, expertise and knowledge and were willing to share them. And a few hundred people responded... You can go through the learning centre and you could go to the Talent Bank and you would say, "I need to learn PowerPoint. I haven't got time to go to a course," so you would click into IT and PowerPoint and there would be a list of staff with knowledge in the area and their email addresses. It was going to be for buddying purposes and for an organising tool when a manager wanted somebody for a special project. So it had a career development aspect."

The view is presented that online learning won't be used in more interactive training. This will be carried out by instructors.

"For me the training that I do – is focused on leadership development, project management, interpersonal skills and management induction. I guess project management can be done on-line, leadership development programs... There are some aspects that can be done on-line – as long as it is interactive with the participants."

Summary

The DPI are at the start of a significant cultural change and the merging of two traditional cultures into a new organisation. While online learning might be used to generate such change at this point in time learning is being defined in a more traditionally transmissive way and the meaning of learning and online learning is a subsidiary cultural debate. This may reflect social needs for stability within such a changing environment.

These findings contain prevalent views that on-line training technology will be utilised for its methodology functionalities, access flexibility and ability to improve pre-existing training methods, information dissemination and transmission of knowledge. Informants perceived roles for improving the compliance of staff in carrying out their statement duties regarding governance accountability and training management. A common view is presented that online learning could be used as training monitor.

The informants expressed the hope that empowerment would enable staff to engage in transformational learning norms and make improvements to their working processes using the new technology and its online learning capability. Another prevalent view saw online learning technology used as tool providing learners with the ability to undertake self-development assist learners in controlling their own learning. The view proposed a Talent Bank be created where staff could share knowledge and solve problems on the Intranet and by email in a collaborative and action learning basis. The view is presented doubting the use of online learning for interactive learning, this being carried out by instructors face to face.

4.7 Overall summary

This chapter has reviewed the key comments made by participants during the study. It is evident that the weight of the data indicates that there are complex relationships between those involved in setting and enacting learning agendas within the organisation. There are dilemmas about both the meaning of learning within the organisation and therefore the role that online learning should play in developing the DPI culture. Inevitably the dilemmas of cultural integration being tackled by the organisation are mirrored within the current dialectic concerning learning agendas.

While there is considerable broad agreement and consensus about compliance as a primary objective of online learning strategy there are polarized views upon the balance between this approach and more subsequent generative uses of online learning technologies. The clear differences in work environments and most importantly the nature of work done appears to be instrumental and underlies such disparities of purpose.

CHAPTER 5: ANALYSIS

5.1 Introduction

This chapter consists of two sections. Part 1, “The Results” section, presents the findings in tabulated form to assist in gaining a “feeling for the data”. These tabulations aim to articulate the emerging patterns. The emerging patterns are selected for attention according their respective weight based upon the primary criteria of prevalence of occurrence and the breadth of occurrence of each emerging themes. The Licensing and the WDU are presented separately due to the diversity of their responses.

The second part of this chapter involves comparing the findings against the referenced literature principles and “interpreting” the implications for the existing research base.

5.2 The Emerging Themes

Table 5: The Emerging Themes

Aggregation of Themes	The Licensing Division	The WDU
Dialectics of Learning		
Corporate Governance Norms	Compliance	Compliance & Innovation
Corporate Discourses	Efficiency, Effectiveness	Productivity & Innovation Efficiency, Effectiveness
The Leadership Paradigm-senior	Primarily Compliance Learning Orientations	Compliance and Innovative Learning Orientations
The leadership paradigm-Middle	Orientated to Compliance	Orientated towards Innovative
Power Coalitions	“Anti-change”	“Pro Innovation”
The Learning Agenda		
The DPI Learning Agenda	Primary Priority: Transmissive learning goals.	Primary Priority: Transmissive learning goals. Secondary Priority: Transformational learning goals.
Visible Learning Curricula		
HRD Plans	Primarily: Information Dissemination on change program, Online learning skills development & refresher training courses. Secondly: Online self-development, collaborative learning & action learning	
HRD Discourses	Compliance	“Strategy”, “Governance”, “Compliance”, “Innovation”, “Empowerment” and “Self- development”.

Invisible Learning Curricula		
Existing Cultural Learning Norms Training levels, motivation for new learning, amount of online, transformational learning engaged in, sharing of information, challenging status quo, admitting mistakes, taking risks	Limited	Medium
Leadership Allocation of Funding	Limited funding & Recognition	Medium Funding & Recognition
Leadership Attention to learning	Limited attention	Medium attention
Leadership Role Modelling	Facilitating Compliance	Facilitating Innovation
Leadership Reaction to deviating learning behaviour	Negative Reaction	Positive Reaction
Structural Design	Facilitating Compliance	Facilitating Compliance & Innovation
Existing Technology	Supporting Transmissive learning	Supporting Transmission & Transformation-type learning
Staff's Online Learning Competency	Limited	Medium
Staff's transformational Learning Competency	Limited	Medium
Desired Cultural Learning Norms	Online learning, Self-development, innovation of work-processes.	Online learning, Self-development, innovation to work processes, collaborative & action learning.
Emerging Role of Online Learning Technology		
Emerging Role of Online Learning Technology	Primarily Transmission	Primarily Transmission Secondarily Transformational

5.3 Weighting the key responses

This section involves displaying the various weightings of the data. Table 5 displayed the main themes and the perceived degree/orientation of each theme. To analyse the strength in which these themes are association with the elements identified in the theoretical design, the study examines the prevalence of occurrence and spread of these themes throughout the sample data.

The scales relating to Prevalence of Occurrence entail, “Common” (Com), “Occasional” (Occ) and “No Indication” (NI).

The scale relating to spread of results entail ratings of “Polarised”, “Weakly Polarised”, “Similar” and “Fairly Similar”

Table 6: The Result Weightings

Themes	Results in Licensing compared to the WDU	Prevalence of theme in Licensing & the WDU
Existing learning culture	Polarised	Common
Leadership paradigm	Polarised	Common
HRD plans	Fairly similar	Common
Local leadership learning Facilitation	Polarised	Common
Local structure learning Facilitation	Polarised	Common
Emerging role of online learning technology	Fairly Similar	Common

5.4 Thematic Weightings

The results were consistently polarised. The polarisation may be due to the nature of the service provided, the variance in job roles, the respective leadership paradigms, the difference in governance guidelines, allocation of resources, or the staff attributes. Due to the degree of polarisation, interpretation of the emerging patterns is carried out first in each of the departmental sections before bring these local results together.

Interpretation Overview

This section involves comparing the study findings to the issues that emerged from the literature and the relationships postulated within the initial conceptual framework and supporting or contending the study’s conceptual frameworks. The implications for the existing research base are then discussed. In conducting the analysis, the study

prescribed to the devices outlined by Miles & Huberman (1994) for qualitative data analysis. The analysis involved first examining the emerging prevalent themes and then examining informants' discourses in relation to organisational learning goals and rationale for use of online learning technology. The second device involved analysing informants' discourses by considering the prosody⁴, cohesion and positioning of keywords used. This analysis was based upon a matrix provided by Barratt-Pugh (2004) and based upon the work of Fairclough (1995), Janks (1997), Luke (1995), Palmer and Hardy (1998/2000) and Gee (1999).

The interpretation is addressed by examining the findings in light of the study's research objectives in the aim of answering the research questions.

5.5 Research Objective One: "To interrogate the factors driving the dialectics of learning" – corporate governance and discourses, leadership paradigm and power coalitions.

The informant's responses indicated that corporate discourses were driven by an obligation to comply with the DPI's corporate governance guidelines. The findings suggest that the DPI's corporate discourses are strongly aligned with the PSA guidelines governing it lending support to (Garrick, 1998)'s principle regarding the strong linkage between PSA corporate discourses and the political discourses of governments in power. This finding supports the linkage represented in Conceptual Framework 1 between the PSA Governance & Discourses box and the Dialectics of Learning box.

Examination of informants' views indicated that disposition of corporate governance towards learning approaches was varied. The study sampled the views presented in the Licensing and WDU sections believing these to be representative of the overall organisation. The findings identified a prevalent view that the WDU has scope for adopting innovative learning practices in contrast to the Licensing Section that was perceived by informants as having a limited scope for adopting innovative learning practices. Review of the extracts from the DPI's 1999-2000 Annual Plan indicate the

⁴ Power and vocalisation or the intensity of vocal delivery.

corporate objectives and discourses of “efficiency”, “cost-effectiveness” and “productivity”. Furthermore, proposals of the current change program articulate HRD strategies reflecting a rationale for addressing these objectives. The corporate discourses and rationale for change articulated in the study resemble typical discourses and rationales described by Stace & Dunphy (1990) having been employed in recent Australian PSA reform programs. These reform programs centred on improving structural efficiency, cost-effectiveness and improving staff productivity.

The findings identify the use of “innovation” as a corporate discourse. The majority of informants expressed views that the leadership paradigm valued knowledge/service when it was judged to be innovative and result in improved performance (Performativity). This finding supports Garrick's (1998)'s concept that PSA corporate discourses are commonly synonymous with the Market Economic and Liberalisation political discourses adopted by current Australian Governments.

The informants consistently recognised the leadership paradigm as a significant factor in the positioning of professional identities within the DPI. These findings support Garrick's, (1998) concept of the “bureaucratic teaching machine” and the self-regulation of professional identities. There is evidence to suggest that the DPI's leadership throughout the hierarchy champions and reinforces organisational learning values and beliefs. The findings articulate leadership's active role in shaping cultural learning values and beliefs through reward/punishment systems and implied statements concerning acceptable and unacceptable learning behaviour.

Examination of the predominant Professional Identities existing within the DPI, identified two main political coalitions engaged in a dialectical struggle over the DPI learning practices. In regards to political coalitions the findings found a complex mixture of two main varying professional identities. This study presents only a limited analysis of this area but identifies two main Professional Identity groupings/power coalitions. One identified coalition supports – “Anti Change”, another supports “Innovation”, within the context of PSA governance. However, these groupings are not meant to be mutually

exclusive but interacting in the ongoing dialectic of control. The informants expressed views that the “Pro Innovation” coalition comprised of senior leadership, HR executive, HRD practitioners and line staff and contain varying identities. The main professional identity identified aligns itself primarily with corporate learning objectives. The other minor identity was believed to contain HRD trainers and planners. This group strongly acknowledges the personal growth needs of learners.

Alternatively, the “Anti-Change” coalition has been thus labelled because it is seen to resist change, particularly change related with creative learning approaches. This coalition is believed by the author to resist HRD plans promoting innovative learning practices and does not comply with its training requirements. The political coalition is believed to be disposed towards Compliance, limiting risk and maintaining the status quo. This coalition is comprised of professional identities aligned with traditional notions of management and control. It mainly comprises of middle management, line management and line staff in the Licensing section. This grouping is seen to resist innovative HRD plans and orientated towards compliance.

5.6 Research Objective Two: The DPI’s Learning Agenda

The findings articulated a primary prioritisation of learning values towards compliance, control, safety and stability significantly driven by the current change program. This was a common theme prevalent in both the Licensing section and the WDU. A secondary, future priority identified was improving staff productivity through online learning and innovative learning approaches. This learning goal was mainly existent within the WDU.

The prioritization of compliance as the key focus of the learning agenda clearly positions transmissive modes of learning above more collaborative or innovative aspirations. In both departments online learning is viewed initially as a system of transferring existing knowledge to staff. The potential to use online learning as a generative mechanism is secondary in the planning processes of both departments.

5.7 Research Objective Three: The Visible Learning Curricula

In examining the HRD plans and legitimate learning practices, the discourses of the HRD practitioners were examined. The findings indicate that the prevalent HRD discourses utilised by planning practitioners reflected and are linked with the DPI's corporate formal strategy, supporting (Garrick, 1998)'s principle of the "Bureaucratic teaching machine" of professional identities mediating organisational goals. Prevalent HRD discourses include [corporate] "strategy", "governance", "compliance", "self-development", "empowerment" and "innovation". The findings demonstrate that the HRD discourses are aligned with corporate strategy and PSA governance.

The informant's narratives describe how HRD plans are aligned with the DPI's learning agenda. The findings demonstrated that criteria for decision making was mediated by the potential of a proposal for –"supporting our strategic objectives" and whether or not "senior leadership endorses" the proposal. Informants' stories articulate the influence that leadership has on the orientation of HRD learning strategies. The findings lend support to (Gardner, 2001b) principle regarding the interrelations of leadership and strategy direction. The findings show how the DPI's HRD plans emphasise firstly improving compliance of middle managers in their training requirements and secondly implementing online self-development learning practices.

5.8 Research Objective Four: The Invisible Learning Curricula

The findings indicate that the WDU aims to implement cultural, behavioural change involving staff engaging in online self-development, collaborative and action learning norms. Throughout the Licensing section, learning norms exhibited a limited motivation levels for new learning; a limited level of training undertaken; a limited transformational learning; limited sharing of information; limited challenging of the status quo; limited admittance of mistakes; and limited risk taking. In contrast, the WDU learning norms exhibited high motivation for new learning; a substantial level of training undertaken; transformational learning being undertaken; sharing of information; challenging of the status quo; admittance of mistakes; and risk taking. The findings demonstrated that the

DPI's leadership was a reinforcement mechanism for the DPI's compliance-based learning culture.

The findings lend support to Schein's, (1995) principle regarding how local leadership significantly embeds and reinforces exiting cultural learning norms. Firstly, "Token Endorsement" and limited allocation of resources to learning practices was believed to limit the value of training in general. This finding demonstrated the DPI's leadership de-prioritising learning and training initiatives in favour of other funding initiatives such as the change program. The linkage of innovation with performativity of the HRD learning strategy proposals devalorises learning. Secondly, limited rewards and recognition of leaning practices is perceived to de-valorise learning. Thirdly the lack of role modelling of learning by leadership de-valorises learning. Finally, leaderships' negative reaction to mistakes and deviating behaviour de-valorises innovative learning.

The following findings lend support to (Schein, 1995) and (Gephart et al., 1996) principles regarding local structure embedding cultural learning values. Firstly, informants views indicated that the structure and job design at the licensing section was constrained, highly regulated and highly demarcated inhibiting staff's capacity for empowerment, self-development, action and transformational learning. Informants perceived the existing technology as shaping their learning towards transmission; learning systems, reinstated towards developing skills listed in statement duties. Embedded skills sets of both learners and instructors were perceived to be incompetent in online learning and transformational learning practices.

5.9 Research Objective Five: The Emerging Role of Online Learning

The findings indicate that the emerging role of online learning technology is to facilitate both Transmissive and Transformational learning practices. However, as indicated by the learning agenda and curricula, online learning will be applied primarily in facilitating Transmissive learning approaches. The role of online learning technology is seen as information transmission, development of prescriptive job skills and as a monitor for training activity. The findings lend support to (Jonassen, 2000) principle regarding the

mediation of the values and beliefs of the controller of the technology, in determining the learning outcomes generated – whether the technology is used for assisting learners or for controlling learning practices. The findings indicate that the dominant values of learning at the DPI have mediated the role of online learning technology towards transmissive-type learning approaches.

However, the evidence suggests that in the future, the role and usage of online learning technology may broaden to encompass transformational-type learning approaches. Roles may include supporting staff self-directed development, cultural building and the capture and sharing of transformational knowledge. There is evidence to suggest that online learning technology may be used more as an intellectual partner supporting learners engaging in learning that is more meaningful, appropriating their learning and setting their own learning goals. The findings demonstrate that initial experiences at the DPI need to be simple and more immediate before constructive approaches can develop. However there the danger exists that the technology will be used only to valorise transmissive learning approaches.

5.10 Addressing the Research Questions
Integrating the relationships managing agendas and online learning.

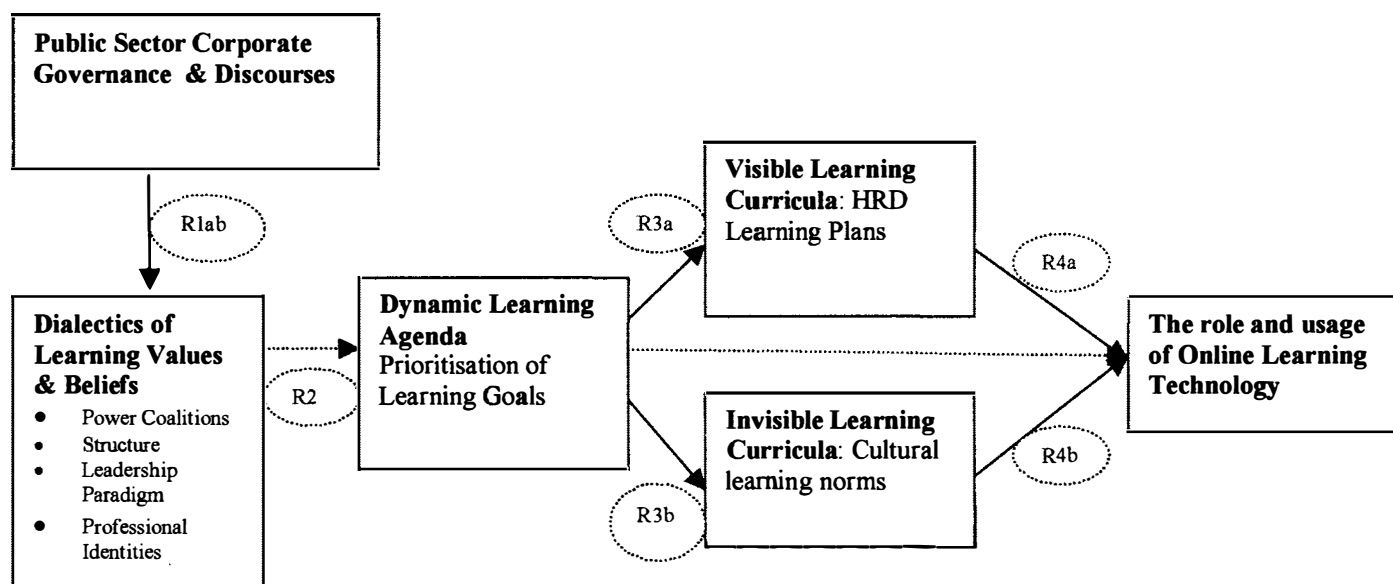
Overview

In addressing the research questions conceptual frameworks were developed to articulate the relationships between the critical elements. Each relationship is addressed in respective research answers. To clarify the answers relationships are illustrated in the frameworks contained in figure 2 & 3 by circle captions. Example “R1ab”.

Responding to research Question 1

What is the relationship between the DPI’s learning agenda and the role of online learning technology?

Figure 4: Conceptual Framework Mapping 1



5.11 Research Answer 1

Relationship 1) Relationship between the power coalitions and learning agenda

Linkage a) Linkage between PSA governance, leadership paradigm, power coalitions and dialectics of learning.

The findings indicated that the DPI's PSA governance and corporate discourses were active in driving the senior Leadership Paradigm. There is evidence to suggest that this relationship extends throughout leadership at the DPI in the form a "Bureaucratic Teaching Machine". Professional identities are believed to self-regulating and to have aligned themselves with the predominant leadership paradigm or power groups resisting this paradigm. As a result, two broad power coalitions are formed that comprise of professional identities with similar learning values and beliefs.

Linkage b) Linkage between PSA Governance and Structural Attributes

A linkage was identified between the DPI's Structural design/ work processes and corporate governance. Factors such as job design, level of regulation, control relationships, the supply of technology and resources; working processes and staff's skill sets were seen shaping learners behaviours.

Relationship 2: Relationship between dialectics of learning and the dynamic learning agenda

The findings suggest that the DPI's power coalitions are engaged in ongoing dialects driving the DPI's learning agenda. The outcomes are the prioritisation of organisational learning goals. The learning agenda is dynamic due to the reiterative nature of dialectics and culture.

Relationship 3) Relationship between the Dynamic Learning Agenda and the Visible and Invisible Learning Curricula – Reinforcement Systems

Linkage a) Linkage between Dynamic learning agenda and Visible learning Curricula

There is evidence to suggest that a linkage exists between the dynamic learning agenda and the prevalent HRD Discourse and HRD learning Plans. The existing Bureaucratic teaching machine is believed to position the professional identities of HRD practitioners and as a result HRD planning practices are aligned with the organisational learning goals.

Linkage b) Linkage between Dynamic learning agenda and Invisible learning Curricula

The findings suggest that a significant linkage exists between the dynamic learning agenda and the DPI's cultural learning norms. Local leadership and structural attributes are believed to reinforce cultural learning values through embedding mechanisms. The existing bureaucratic teaching machine is believed to position learners' professional identities in alignment with the organisational learning goals.

Relationship 4) The relationship between the learning Curricula and the role of online learning technology and learning outcomes generated

Linkage a: the linkage between HRD planning and role of online technology

A significant linkage is believed to exist between the HRD plans and the emerging role of online learning technology. This is believed to be due to the HRD discourses that valorise learning practices supported in the organisational learning goals. This is believed to permeate instructional design, instructional goals, content and the methodology used. It is believed that the control over content and learning goals is significantly linked to the learning outcomes generated.

Linkage b) The linkage between learning cultural norms and the role of online technology

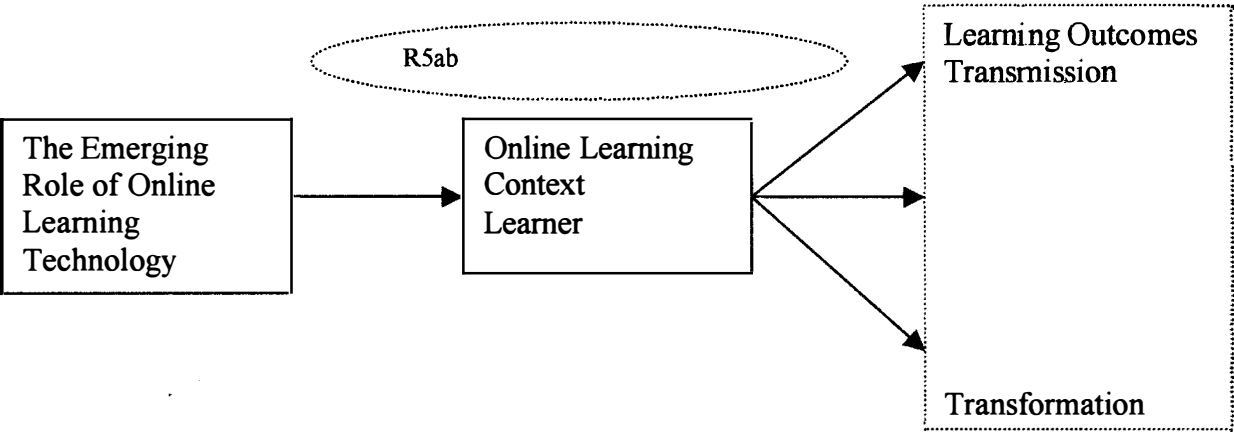
The findings indicate that a significant linkage exists between Cultural learning norms and the emerging role of online learning technology. It is believed that learners position their learning practices in alignment with the organisational learning values and beliefs.

Table 7: The Summary of Results for Research Question One-the significance of relationships

Summary of results for RQ1		
Relationship of Corporate governance & discourse on reinforcing values, beliefs and norms regarding learning.	Significant	Driver
Relationship of power coalitions and dialectics of learning with learning agenda.	Significant	Driver
Relationship of learning agenda and learning curricula	Significant	Mediator
Relationship of visible learning curricula and the emerging role of online learning technology.	Significant	Mediator
Relationship of invisible learning curricula and emerging role of online learning technology.	Significant	Mediator

Responding to Research Question Two: to what extent does this relationship mediate Transmissive and Transformational learning approaches at the DPI?

Figure 5: Conceptual Framework Mapping 2



5.12 Research Answer 2

Relationship Five: The relationship between the emerging role of online learning technology and the nature of learning outcomes

Linkage a: linkage between instructional goals and learning outcomes

Role: Facilitating Transmissive learning outcomes

The findings suggest that the primary role for online learning technology was facilitating transmissive learning approaches. The rationale for usage centred on the technology’s capability of supporting, improving and controlling traditional instructional techniques. Traditional training was identified as being teacher-centred. Prioritised responsibilities included information transmission, ongoing training and refresher courses of job statement duties; and improving the transparency and recording of training processes. Learning goals, content and methodology are believed to be largely mediated by the dominant values and beliefs regarding learning embedded throughout the local leadership culture, structure and strategy. A low level of interaction between learners and content is perceived. Content was prewritten and instructed in its entirety.

Role: Facilitating Transformational learning outcomes

The findings suggest that a secondary role for online learning technology may in the near future involve facilitating transformational-type learning approaches. The rationale for usage centred on supporting learners managing their own learning. This involves a more learner-centred approach where learners have the opportunity to choose some of their learning content, their learning goals and have autonomous control over the technology. This allows learners some scope for appropriating their learning. The technology is seen as playing the role of an “intellectual partner” to learners providing them the capability. A second transformational learning opportunity involves collaborative and action learning. This is interpreted as being the most pure form of transformational learning involving high levels of learner interaction with content and an ability to transform knowledge.

Linkage b) the linkage between learning agenda (culture) and learning outcomes

The Organisational learning values, beliefs and agenda are perceived to prioritise compliance and control. The secondary priority is seen to be promotion of innovative learning practices that demonstrate performativity. This is seen to shape learners’ goals in alignment. As a result, learners are highly influenced in adopting Transmissive learning approaches. Later when the learning agenda shifts towards promoting more innovative learning practices, learners too may shift and adopt more Transformational-type learning approaches.

Table 8: Summary of results for RQ2: Disposition of Critical Elements towards Mediating Learning Outcomes

Disposition towards learning approaches	Licensing	WDU
Corporate Governance & Discourses	Compliance and Innovation learning orientation	Compliance and Innovation learning orientation
Senior Leadership Paradigm	Orientations towards Compliance and Innovation	Orientations towards Compliance and Innovation
Divisional Leadership Paradigm	Compliance orientation, a limited orientation towards innovation	Compliance & Innovation learning Orientation
Learning Agenda	Primarily Prioritising Compliance, Limited	Primarily Prioritising Compliance, Secondary

	prioritisation of innovation	priority Innovation
HRD plans	Primarily Transmission, Secondly Constrained Transformation	Evenly Transmission & Constrained Transformation
Existing Cultural Learning Norms	Primarily Transmission, Limited Transformation	Evenly Transmission & Constrained Transformation
Local Leadership’s facilitation of learning	Compliance Orientated, Limited Innovation	Innovation Orientated,
Local Structure’s facilitation of learning	Highly facilitating transmission, a little scope for transformational	Some facilitation of Transmission and some scope for Constrained Transformational
Role of Technology – learning outcomes facilitated	Main role as learning controller, facilitating transmissive learning. Limited role as a learning partner, facilitating transformational learning.	Equal role as learning controller, facilitating transmissive learning. And learning partner, facilitating constrained transformational learning.

5.13 Summary

In the Licensing Section, the learning agenda is perceived as primarily prioritising compliance with a limited orientation towards innovation. The Licensing Divisional Leadership Paradigm can be seen as a major driver of this strong orientation towards Compliance. This learning agenda is perceived to significantly mediate the visible learning curricula through formal legitimised HRD plans and discourse and reinforce the compliance orientated invisible learning curricula through leadership and structure embedding relationships identified in the findings.

In the WDU the learning agenda is perceived as primarily prioritising compliance and secondarily prioritising innovation. Once again, in the WDU, Divisional Leadership Paradigm can be seen to be a major driver of the learning agenda, however, in this case it is orientated towards both Compliance and Innovation. Similarly, in the WDU, the learning agenda is perceived to significantly mediate visible learning curricula through formal legitimised HRD plans and discourses but in contrast to the Licensing Section reinforces both Compliance and Innovation learning values. The learning agenda existent in the WDU is perceived as mediating the invisible learning curricula through leadership

and structure embedding relationship identified in the findings but in contrast to the Licensing Section is orientated towards both Transmission and Transformation learning approaches.

In summary, the evidence to this question clearly displays two different organisational learning contexts existent in the contrasting areas of the Licensing section and the WDU. The interrelationships of the learning agenda, visible and invisible learning curricula in each area vary and as a result, the mediation of the emerging role of online learning in each area differs. The Licensing Section primarily orientated towards facilitating transmission learning approaches with limited orientation towards facilitating constrained forms of transformational learning approaches, whereas, the WDU is orientated towards facilitating both transmission and constrained forms of transformational learning approaches on a more even basis.

5.14 Limitations/constraints on the extent of transformational learning

The extent to which the learning can be transformational is thought to be mediated by the DPI's obligation to comply with the PSA governance and the strict alignment of its leadership paradigm with the PSA governance discourses. Although innovative behaviour is promoted, leadership does not promote staff challenging the existing paradigm. So transformational learning in the pure form described by (Rylatt, 1994) and (Schein, 1995) is non-existent. The capacity of learners to engage in Transformational learning is further limited by the lack of resources, time and staff. It is inhibited by inflexible work processes and structural design constraints described by (Gephart et al., 1996) as essential for transformational learning. Finally, the lack of instructor and learner expertise in facilitating transformational learning reduces the extent to which it is engaged.

The chapter has presented the findings in tabulated form to provide a feel for the key emerging themes from the data in the previous chapter. The variable weights and relationship between the themes have been explored to illuminate the similarities and the differences that exist within the sub groups of the organisation. Finally the chapter has

responded to the five objectives of the research study using the illustrative material gathered from the DPI and then formally addressed the two research questions. The study indicates how the DPI PSA governance and corporate discourse drives and mediates learning practices. The study also illuminates how the prioritisation of learning compliance and innovation differ across subsections of the organisation.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

The purpose of this exploratory research study was to identify and explore the relationships mediating the application of online learning at the DPI. There are several reasons why the outcomes of this research make it significant. Firstly, Business investment in online learning technology is increasing. From a business point of view, this necessitates the ability to better understand the factors that mediate the outcomes of online learning. The study aims to enrich the knowledge base concerning analysis of the outcomes of online learning. Much of the existing research involved experimenting with learner's attributes, online learning technology and learning outcomes. Although this research is plausible for educational settings, business settings are complex and a wider range of variables and considerations need to be acknowledged. This study has acknowledged two important principles raised in contemporary literature. The first concept being that organisational learning contexts are a primary factor affecting learning outcomes; and the second being the premise that the use, role and ultimately the learning outcomes facilitated by educational technology are largely influenced by the values and beliefs of its controller. This study sought to incorporate these two concepts into its analysis.

The second reason why this study is significant is because it acknowledges the importance of culture in the application of online learning in business settings. It examines how local leadership, culture, structure and strategy reflect and reinforce the predominant values and beliefs regarding learning within organisations. It examines how these factors contribute to the mediation of the role of online learning technology.

In addition, this study is significant because it places the paradigm of assessing online learning technology's capabilities in a learning context, rather than a technocentric context. The literature is full of material propounding the capabilities of online learning technology and much of the praise relates to functionality and the increasing the efficiency of learning practices. There is a lack of research that focuses on the application of online technology in facilitating human learning phenomena. This is

believed to be a huge shortcoming of the existing literature. There is a long history regarding learning theory and it provides important insights into learning approaches and outcomes. Two main types include Transmission of knowledge and learners' Transformation of knowledge. In an organisational context, the learning approaches adopted are shaped by the learning values, agenda and goals of the predominant political coalitions in the organisation.

This study aimed to explore the mediating factors in organisational learning contexts. The premise was held that the control of the technology is significant in determining the learning outcomes generated. This study aimed to explore the controlling relationships existing within organisational contexts and used the Meta-learning process as a framework. A prominent literature principle guiding this exploration was the principle of Bureaucratic Teaching Machines, self-regulation of professional identities; organisational disciplinary agendas; and organisational visible and hidden learning curricula. Local attributes of Leadership, culture, structure and strategy were utilised to examine the reflection and reinforcement of organisational learning agendas. Local strategy reflected the visible learning curricula, whilst cultural learning norms were used to examine the hidden learning curricula. The study referred to the literature principle that Leadership and structure as important embedding mechanisms and perceived to be particularly important in setting the predominant cultural norms, values and beliefs regarding learning. These are then embedded into the culture, legitimised in strategy and facilitated by structure. This study then examined the role of technology examining factors of learner-centeredness and extrapolating from that whether it used to control learning practices or used as an intellectual partner to the learner.

This exploratory study involved a qualitative, purposive case study design. It utilised a single unit of analysis because of the revelatory opportunity provided by the organisation, the complexity of the relationships involved and the local nature of the phenomenon. The study adopted a "Transcendental Realist" stance and aimed to increase understanding of the phenomenon by building theory. This was achieved through a narrative approach where the author aimed to tell a story and engage in what Schon calls sense-making. Although

not an explanatory attempt, this study aims in the form of sense making, to improve understanding, by articulating local variables involved in explaining the localised nature of the research problem. The study acknowledges the localised nature of the variables and causality in the relationships examined.

The study was largely constrained by the single unit of analysis, and yet such a purposive sample provided a wealth of access and informative material. Within the DPI there exists a wide range of services and scope for examining the phenomenon. In order to manage the data reduction, two main organisational locations, the Licensing Division and the WDU were examined. These two locations are believed to be representative of the two emerging professional identities groupings existing in the DPI – the “Anti- Change” and “Pro Innovation” learning coalitions. In this respect, the case study resembles a multiple unit case study where services although different in service provision, are based in the area of Transport management. Informants were selected on the basis of involvement and knowledge regarding policy, planning and management of the learning practices. The primary measuring instrument used was in-depth interviews. The interviews aimed to extract the qualitative information needed to address the research issues. In order to triangulate the results and ensure validity of the findings, the additional measuring techniques of documentation analysis and observance were employed. Questions were guided by the theoretical framework and intended to extract the optimum amount of personal expression and insight. Main questions focused upon the participants’ perceptions of the DPI’s learning culture, and the plans, leadership, resources and barriers for online learning?

Data reduction and display followed the guidelines set out by Miles and Huberman (1994) and involved inducing and checking data. Data analysis followed a linear-analytical form described by Yin (1994) and involved judging patterns emerging from the data on the strength of association, plausibility and coherence of understanding.

Major Findings

The following paragraphs describe the major findings of the study and illustrate how the study contributes to our general understanding about the introduction of on line learning within organisational situations.

In relation to Research Question One: “What is the relationship between the DPI’s learning agenda and the emerging role of online learning technology?”

The conclusion reached is that a significant relationship exists between organisational learning agenda and the role of online learning technology. Corporate governance and discourses and the dialectics of learning are believed to drive the organisational learning agenda. The learning agenda is believed to mediate the role of online learning technology through the visible and invisible learning curricula. The findings are believed to support the linkages postulated and illustrated in Conceptual Framework 1 at the start of this study.

In relation to Research Question Two: “To what extent does this relationship mediate Transmissive and Transformational learning outcomes?”

The conclusion reached by this study is that the critical relationships illustrated in the Conceptual Framework 1 significantly mediate the learning outcomes generated by online learning technology, despite the propounded capabilities of online learning technology to facilitate numerous learning approaches. This finding is significant in that it indicates that Online learning at the DPI’s is highly likely to be Transmissive in nature. The organisational learning agenda appears to prioritise Transmissive learning goals thus shaping HRD plans; cultural learning norms and reinforcing the Transmissive learning role of the technology. It is perceived that in the near future, the learning agenda may focus on Transformational-type learning roles. However, the emerging transformational learning roles will exist within the confines of a corporate governance context that recognises innovative learning to practices on the basis of performativity. There appears to be no intention of challenging existing paradigms.

Such intentions are demonstrated in the Pilot study – the industry report for the DPI management. The recommendations of this report are attached as Appendix 2.

Summary

The findings of the study suggest that the utilisation of online learning technology in the DPI's learning practices should not be the exclusive area for examination. An examination should be based on the DPI's learning environment and acknowledge the local organisational factors driving and mediating the role and usage of online learning technology. This study suggests that any study of online learning should not be made without focus given to the organisational learning agenda and the learning values and beliefs it promotes. Furthermore, that it is plausible to suggest that the likely role, process and outcomes of online learning in any organisation maybe more clearly understood by focussing on the values and attributes of the learning culture rather than by focusing on the technical opportunities. This study has demonstrated how a focus on technological acquisition obscures more important examinations of meaning within an organisation, in this case the meaning of learning. In doing so this study makes a relevant contribution to our understanding of learning and organisations. The study is specifically relevant in an era where so many organisations operate in virtual spaces and possess impressive arsenals of electronic capability. How that technology will be harnessed for organisational and individual growth will continue to be an important question. In a small way, this study provides those involved in such task some key questions to define the start of their explorations.

Limitations

A primary concern regarding this study is the single unit of analysis and limited sample size. Although it can be argued that management professionals provide a good appraisal of what is happening within organisations, there is little to judge the depth of knowledge and authenticity of perceptions gathered. Other constraints included limited resources, staff and time being available to the researcher within the organisation. It is acknowledged that the researchers' research abilities and paradigm of thinking may also

have biased the analysis of the results. However, the study does not intend to *explain* the phenomenon but to add to the *understanding* regarding the variables involved in the phenomenon.

Recommendations for further research

This research is an exploratory study into the relationship involved in mediating the application of online learning. The purpose of the study was not to explain or prove causality but rather to clarify the context the phenomenon exists within and to provide enough evidence to allow plausible conclusions about the nature of the phenomena to be reached. This study has explored the variables indicating the existence of mediating relationships. Further studies should analyse the relative strengths of the forces driving and mediating these organisational attributes. The following areas are believed to be significant areas for further study.

- What are the prominent political discourses governing Australian PSAs and how do they relate to online learning technology and transformational learning approaches?”
- “What is the nature of the dialectics of learning in PSAs and how are learning agendas formed?”
- “What is disposition of senior PSA leaders to transformational learning approaches?”
- “What is the nature of the self-regulation process of PSA Professional identities and the PSA Bureaucratic Teaching Machine?”
- “What are HRD trainers and learners’ competency in online and transformational learning approaches?”
- “What is the nature of learners understandings of implicit organisational learning goals?”
- “How does online learning suit varying styles of learning?”

Finally

Online learning can offer great learning opportunities both for organisations and the individuals within organisations but it is just as much a prisoner of the learning culture and management learning agenda as any other form of interaction within the organisation. Managing agendas that are based upon uniformity and control interpret learning within the organisation as the transmission of knowledge and view on line learning practices as an opportunity to streamline such delivery. Where there is a focus on individual identity growth learning, and on line learning, is a mechanism that can be used to bridge time and distance within an organisation so that new meaning can be generated.

Perhaps most importantly is placing e learning in the broader perspective of organisational knowledge making. Every conversation is a learning experience. Subtlety, confirming and changing meaning between organisational members. On line learning is just one material aspect of such exchanges, one piece of the jig saw and not in itself even a partial answer. As participants in this study recognised,

There are some aspects that can be done on-line – as long as it is interactive with the participants.

As within most initiatives designed to change organisations, time spent analysing the purpose of change and the key desired outcomes of the intervention is a worthwhile investment. In this case the attitudes held towards learning and the way that learning is defined are critical to the use of what is in the end only a learning delivery mechanism. It is the intentions behind the use of that mechanism that is important. On line learning, like any delivery mechanism, can be used to construct learners or enable learners to construct new realities within their organisation and with their colleagues.

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APPENDIX ONE: TYPES OF ON-LINE LEARNING TOOLS

There are three broad groupings of on-line training tools – “Informatics”, “Conferencing” and “Computer-based Training”. However, these tools are not mutually exclusive and functions of these can be combined to meet specific needs of human users. These combinations are labelled “Hybrids”.

Grouping	Specific Tools	Learning Produced
Informatics	The Informatics grouping comprises of accessible sources of information contained on computer networks including Intranets, virtual libraries, databases and the World Wide Web.	Memorisation, independent discovery.
Conferencing	The Conferencing group involves asynchronous and synchronous computer mediated communication. Tools include emails, Bulletin Board Systems and Inter relay Chat (IRC).	Collaborative, social learning, self-reflection and critical understanding.
Computer-based training	The Computer-based training grouping involves computer-mediated instruction. Functions include lectures on CD ROMS, “drill and practice” exercises; demonstration and modelling functions; and self-assessment/reflection programs.	Memorisation, assistance of mental processes, self-reflection and critical understanding
Hybrids	The Hybrid groupings combine the pre-mentioned tools and include Authoring, Open Learning and Scaffolding programs. Hybrid tools are based on networks, with computer mediated guidance functions and options for feedback from instructors.	Independent discovery, self-reflection, social learning and critical understanding.

APPENDIX TWO: THE INDUSTRY PROJECT

*Exploring Opportunities for the implementation of
On-line Learning at the
Department of Planning and Infrastructure*

Prepared by Researcher Alex Scholz

ECU Research Supervisor:
Transport Research Co-ordinator:

Llandis Barratt-Pugh
Gary Dewhurst

December

EXECUTIVE SUMMARY

This project arises out of the joint research agreement between ECU School of Management and the Department of Planning and Infrastructure (DPI) focusing on effective implementation of on-line learning.

Aims of the Project

The project seeks to investigate effective practices that the DPI can take to facilitate the introduction of on-line learning into its current training and learning processes.

The Outcomes of the Project

This project sets out recommendations that will facilitate the implementation of on-line learning at the Department of Planning and Infrastructure (DPI). The report contains

1. A review of the existing training and development environment and processes;
2. Local options for achieving implementation; and
3. A staged action plan for implementing recommendations.

Method and Process

The study's sample involves staff from the Licensing section and Workforce Development Unit and HR Department of the Corporate Services section. Data sources include a literature review, interviews with DPI's staff and organisational documentation analysis. This report provides a conceptual framework for analysing the factors affecting implementation of on-line learning. The report details the findings gathered during the study and reviews the good practice advocated in the relevant literature.

Recommendations

Finally, the report clarifies the practical opportunities and barriers to implementation of on-line learning in the DPI's training environment and processes. This tabulation makes a clear distinction between transmissive and transformative learning goals. A staged action plan aiming to facilitate implementation is outlined in detail to assist practitioners in strategy development. The recommendations focus on achieving initial success in online implementation, and on developing policy and communication strategies for on line learning. The study provides a conceptual model that can be used to develop policy in the area by examining and improving understanding of the organisational factors that impact on the application and future management of on-line learning.

The report attempts to provide evidence, options for action, and a platform for further thought and policy development by the management of the DPI.

Introduction

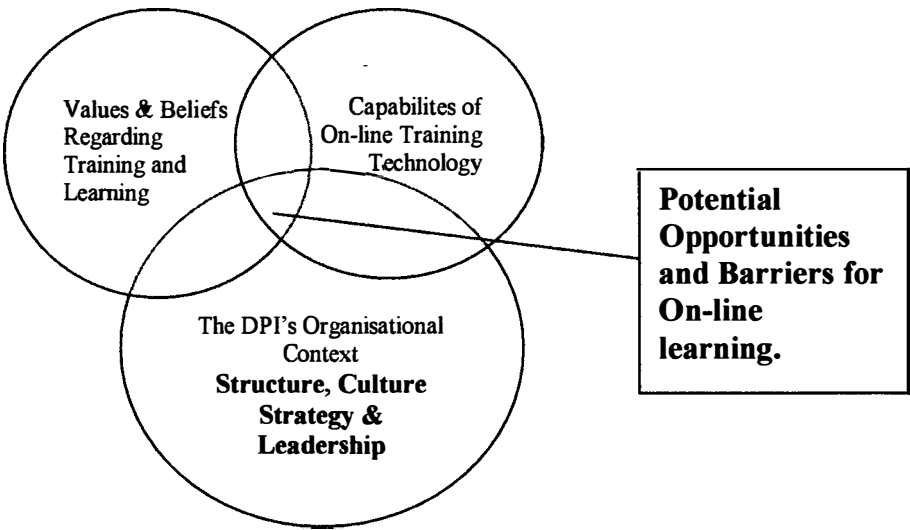
To operate successfully in today’s dynamic business environments organisations must be capable of continuous development and change. One of the key factors in establishing this **capability**, is the development of the organisation’s human resources. Human resource development must focus on ensuring that staff have the competencies and commitment to continuously develop and change.

To accommodate these needs, contemporary human resource development practices have shifted their emphasis from “**training**” which addresses present performance requirements to “**learning**” which addresses both present and future performance requirements.

On-line learning is one option that has been employed in such practices. On-line learning technology has been argued to provide functional benefits that support continuous, self-managed and collaborative learning.

The industry project forms part of an Honours thesis undertaken by the author focusing on the application of on-line learning at the DPI. The Honours thesis sought to model the relationships between the key factors impacting on the application of on-line learning. In achieving this aim, a **conceptual model** was designed that examined the relationships between organisational values and beliefs regarding training and learning; organisational contextual factors of culture, leadership, structure and strategy; and the capabilities of on-line training technology. The outcomes of the thesis involved a synopsis on the context and scope for online learning in sections of the DPI.

The industry project applies the findings of the Honours thesis and recommends actions to be taken by the DPI to facilitate implementation and achieve its learning objectives. The project focuses on structural factors and training processes at the DPI that create potential opportunities and barriers for on-line learning.



The Research Questions

The research question focuses on - what practices the DPI needs to undertake to facilitate the implementation its on-line, self-development learning program.

The key questions that need to be considered include:

What are the DPI’s on-line learning objectives?

- 1) What are the existing opportunities for on-line learning at the DPI?
- 2) What are the barriers to the realisation of the DPI’s on-line learning objectives?
- 3) What actions can be taken to overcome these barriers?

Supplementary questions include:

- 1) What are the capabilities of on-line training technology in supporting learning?
- 2) What is the relationship between the DPI’s structure/processes, culture and capabilities of on-line training technology – the potential opportunities and barriers on-line learning at the DPI?

These questions have been addressed through a data collection process and literature review at the DPI. Interviews, questionnaires and observation have attempted to triangulate views from several layers within the organisation to present a broad picture of the current situation. The data collection has been limited by the time line and resources available to the project but has enabled the finding of the report to be interpreted with some confidence.

Findings

The existing training environment and processes at the DPI.

This section primarily focuses on the cultural learning norms and training processes existing at the DPI. Examination of cultural norms involves a focus on dominant learning behaviours. Cultural values and beliefs are outside the scope of this analysis. Examination of training processes encapsulates a focus on the training planning function, training technology, resources and training processes.

Table 1: The Dominant Cultural Learning Norms at the DPI

<u>Cultural Learning Norms</u>
1. There is in general limited motivation for training and learning
2. Staff tend not to exhibit responsibility for managing their own training and learning processes

6. Low numbers of staff engage in performance development planning
7. Low numbers of staff engage in voluntary self-development
8. Low number of staff have competence in computer and on-line learning skills
8a) . On-line learning, self-development may not suit staff's learning styles
9. There is some staff resistance to being involved in performance/self-development, and on-line learning.
9a) Staff appear to be afraid of the “ learning” unknown
9b) Staff appear to be afraid of <i>having</i> to learn new things. Staff prefer face to face training and many staff are not familiar with personal computers and worried about being disadvantaged as a result.
9c) Staff are uncomfortable with change and disruption of their working relationships
9d) Staff are afraid of losing their power- the current structure, control system and promotion framework allows certain senior level staff to be complacent, reduces their motivation to develop and reinforces their benefits they receive as part of their hierarchical power.

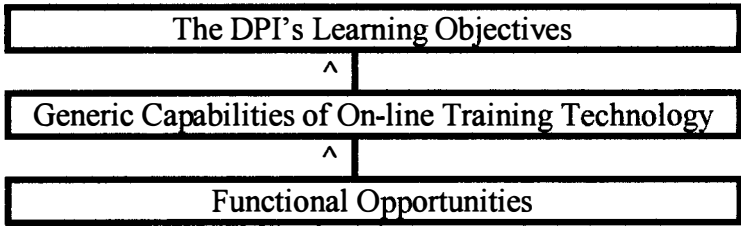
Table 2 : The Training Process at the DPI

The training processes	
Planning	<ul style="list-style-type: none"> • Training planning is orientated towards current conditions rather than future objectives • Training needs analysis are carried out by branch managers in conjunction with the Corporate services division separate from the line where the tacit knowledge is possessed • Training needs are assessed by individual perceptions and based on the rule of thumb and previous years methods. There is limited incorporation of job-related competencies.. • Training courses primarily involve off the shelf courses, often not linked to competencies required for the job.
Equipment & Resources	<ul style="list-style-type: none"> • There is a perceived lack of funding • Many staff do not have access to PCs, • Existing computer databases perform limited functions, and provide limited scope for creative input and personal growth

Processes	<ul style="list-style-type: none"> • Training is limited to off the shelf courses • On-line learning is not integrated into work processes • Performance development planning is often not undertaken • There is limited strategic and leadership support for self-development and on-line learning • There is an ineffective formal career framework and performance measurement system • There is lack of resource allocation, leadership attention, modeling, recognition, rewarding and facilitation of on-line and self-development learning norms.
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Opportunities

The Overview of the Organisational Opportunities :



Learning Objectives

The findings have indicated that the DPI is *aiming to install* a culture of self-development. Staff would need to engage in voluntary self-development and performance planning. It is therefore important to review the variety of roles that can be played by on line learning to achieve future cultural change. The role of on line learning at the DPI should be determined by these wider strategic goals. An emphasis on transformative knowledge construction being the preferred role. However assimilation of on line learning into the DPI culture, and the development of user skills may necessitate some initial transmissive mode operation.

Generic Capabilities of On-line Training Technology

“Generic Capabilities” refers to the capability of on-line training technology in facilitating learning outcomes and supporting the DPI’s learning objective.

“Transmission of information” – refers to one-way transference of information and the memorisation of that information by learners. Example - the Intranet’s posting of the Annual Report, occupational health and safety procedures.

“Transmissive Skills Development” - refers to the capability of facilitating learner’s development of pre-determined, job specific skills. Skills are memorised and practiced by learners in their entirety. There is Examples: legal reporting procedures, computer skills.

“Transformational Knowledge Development” – refers to the capability of facilitating learners engaging in critical self-reflection and generating new work-related knowledge. It emphasises social reconstruction of existing knowledge. Example: interpersonal skills; the cultural aspects of leadership and team learning.

“Facilitation of an on-line/self-development learning culture” – refers to the reinforcement of values, beliefs and behaviours promoting on-line learning and self-development as cultural norms.

Capability to Reduce costs – *refers to the capability to reduce costs involved with the overall training function*

Capability to make training transparent and accountable – *refers to the capability of facilitating measurement of training outputs, processes and reporting.*

Functional Opportunities

Functional Opportunities refer to practical, organisational scope for utilisation of on-line training technology in facilitating the generic capabilities described previously.

1a) Generic Capability of on-line training technology	Transmission of information
1b) On-line training tools	<ul style="list-style-type: none"> • Intranet: databases, libraries; • Computer-based modules CD ROM
1c) Organisational Opportunities	<ul style="list-style-type: none"> • Provide general organisational information eg structure, key services • Provide a control tool for culture and performance management – communicating Vision, cultural statements • Formal strategies, policies, plans, rules and expectations • Provide corporate governance and legislative guidelines
1d) Advantages over traditional training	<ul style="list-style-type: none"> • Provides a constant communication of large sources of information, from multiple sources, • In great detail, • accessible over distance and at flexible times, • immediately updateable; and • able to instruct large number of staff simultaneously.
1e) Disadvantages to traditional training	<ul style="list-style-type: none"> • Learners with a personal preference for face –to-face and print communication modes disadvantaged.

2a) Generic Capability of on-line training technology	Transmissive Skills Development
2b) On-line Training Tools	<ul style="list-style-type: none"> • Intranet, databases, libraries. • Email, group conferencing, IRC • Computer-based computer modules: computer skills development, drill and practice exercises, modelling functions, self-reflection exercises, Guided discovery
2c) Organisational opportunities	<ul style="list-style-type: none"> • Provides job specific information – managerial competencies, processual details, job descriptions • Provides foundation for performance development planning – staff will be able to undertake refresher courses on-line, in the skills and knowledge they require. • The competency-based computer modules will allow for staff to engage in voluntary development
2d) Advantages over traditional training	<ul style="list-style-type: none"> • Provides benefits of 1d); • And allows complex information to be modelled and calculated
2e) Disadvantages to traditional training	<ul style="list-style-type: none"> • Includes disadvantages of 1e), and • Feedback can be delayed depending on learning tool

3a) Generic Capability of on-line training technology	Transformational Knowledge Development
3b) On-line Training Tools	<ul style="list-style-type: none"> • Talent Bank • Email, group conferencing, IRC • Hybrid tools.
3c) Organisational opportunities	<ul style="list-style-type: none"> • Self development of team and interpersonal skills • Team learning • Action learning • cultural development • leadership development, • Knowledge management/Organisational learning
3d) Advantages over traditional training	<ul style="list-style-type: none"> • Asynchronous learning reduces social reticence, • Can allow for longer analysis of information before responding and • reduces negative effects of cultural diversity.
3e) Disadvantages to traditional training	<ul style="list-style-type: none"> • Loss of non-verbal communication cues - can reduce understanding and trust, can lose motivational aspects of face-to face atmosphere.

4a) Generic Capability of on-line training technology	Capability to install a on-line, self-development learning culture
4b) On-line Training Tools	<ul style="list-style-type: none"> • Intranet, Talent Bank • Email, group conferencing • Computer-based computer modules-curricular, training assessment and performance monitor
4b) Organisational opportunities	<ul style="list-style-type: none"> • Sustains change through continuous dissemination of up-to-date information regarding the culture change on the Intranet • Utilising of on-line tools in training will develop on-line learning behaviours and create initial successes for the change process • Advertise jobs on-line encourage staff to utilise on-line tools • The competency-based computer modules allow for integration of on-line training with on-the-job learning • The competency-based framework allows staff to engage in independent self-assessment and self-development • Provides performance development planning on-line and monitoring capability
4d) Advantages over traditional training	<ul style="list-style-type: none"> • Provides a more sustainable/updateable communication of the culture change policies, • Allows for an objective assessment of learning and performance and reward
4e) Disadvantages to traditional training	<ul style="list-style-type: none"> • NA

5a) Generic Capability of on-line training technology	Cost Reduction
5b) On-line Training Tools	<ul style="list-style-type: none"> • Intranet, Talent Bank • Email, group conferencing Computer-based computer modules-curricular
5c) Organisational opportunities/Advantages over traditional training methods	<ul style="list-style-type: none"> • Flexible access will reduce travelling costs associated with trainers or trainees leaving the workplace • Will reduce time lost for releasing staff • Flexible access times can allow for more efficient organisation of training • Reduce paper and storage costs •
Disadvantages	<ul style="list-style-type: none"> • Cost of Initial investment • Costs of ongoing maintenance of hardware and software involved

6a) Generic Capability of on-line training technology	Improve accountability
6b) On-line learning tools	<ul style="list-style-type: none"> • Intranet, Talent Bank • Email, group conferencing • Computer-based computer modules-curricular, training assessment and performance monitor
6c) Organisational Opportunities	<ul style="list-style-type: none"> • The use of a computer-based assessment system will improve training reports, and assist objective assessment of performance and promotion • Will aid measurement of performance development planning • The computer based assessment and PDP monitoring system will branches, divisions and sections to create report training needs and account for funding
6d) Advantages over traditional process	<ul style="list-style-type: none"> • On-line technology provides calculation and modelling functions • Records are more portable • Improves access to records • Better organised, harder to get lost • The ability to interconnect allows for more centralised control of reporting procedures • Reports are more accurate and decisions more objective
6e) Disadvantages to traditional process	<ul style="list-style-type: none"> • Requires additional training for administrators of the system • Concerns over misuse of information.

Barriers to on line implementation

Barriers existing in current training environment for on-line and self-development learning culture

Contributing organisational factors	Staff are not competent in utilising on-line training technology and self-development
Structure	<ul style="list-style-type: none"> • Staff don't have access to PCs, • Existing computer databases perform limited functions, • There is limited integration of on-line/self-development into current work processes
Learner Attributes	<ul style="list-style-type: none"> • Due to staff's educational history, age, personality have had limited contact with computers. • On-line learning, self-development may not suit staff's learning styles.

Contributing organisational factors	Staff are resistant to on-line, self-development learning.
Structure	<ul style="list-style-type: none"> • Lack of staff – to relieve staff seek to engage in self-development, • Lack of a effective framework for self-development – causes distress amongst staff. • Hierarchy causes complacency, authoritative* leadership approaches.
Learner Attributes	<ul style="list-style-type: none"> • Staff lack competence in on-line learning and self-development. • Staff may prefer traditional training methods. • On-line learning/self-development is not suited to learners' learning style. • Staff fear the unknown, fear new learning, fear of being penalised for performance, are uncomfortable with change, fear losing their recognition and power, • Staff have limited motivation and commitment to self-development.

Barriers to change efforts

Change Barriers	Organisational context
Management are failing to grasp the need for change	Senior management have not* made a clear commitment to and fop the need for on-line/self development. It is not high on the agenda. This is mirrored throughout hierarchy levels.
The Change leadership lacks strength	The group supporting this change, lack seniority, divisional and staff representation.
Understanding of the issues surrounding learning is limited	Learning is not an agenda item within the management structure. Capability building does not appear to be a key priority. There appears to be limited understanding of organisational learning and knowledge construction within the organisation.
There is a lack of a coherent vision, policies promoting change	The existing corporate vision does not acknowledge *. Current corporate objectives and policies do not acknowledge it.
Vested interests and systematic obstacles	The appears to be a pocket of resistance in the middle-level of management. Current training planning processes. The processes of training needs analysis and performance development do not support self-development. Lack of career

	structure. Training curricular not capable of providing self-development. Line managers role is too varied and does not *facilitate/enable learning efforts. Reward and promotion system rewards individual efforts, linked to length of service not competencies.
Failure to anchor changes into the culture	There is a lack of consideration of the cultural values, beliefs and behaviours concerning learning. Current learning values and beliefs view training as a means for controlling behaviour and ensuring it complies with the status quo - rather than promoting self-development and innovation. Training is task orientated neglecting relationships, little consideration of personal growth.

Interpretation of existing training environment and process

In the existing training environment, the majority of staff have **limited responsibility** for self-development and on line learning. Staff were found to have had little experience with computers, relating to their age, educational background and their lack of access at work. The computers supplied at work provided limited functionality and no on line PC learning applications.

The existing training environment is a culture with a **generally limited commitment** to and motivation for, training. This was linked to factors under-resourcing, and staff being unable to attend training due to staff shortages. In addition the outdatedness of the existing technology has shaped staff's learning towards expectations of compliance, with limited opportunity for creative input.

There was a **high level of resistance** to adoption of on-line learning. This was linked to a lack of knowledge and competency in using on-line training technology which may result in insecurity about being disadvantaged in performance. Many staff preferred traditional learning methods and believed that on-line learning/self-development did not suit their learning styles. There existed a general resistance to change – arising from fear of the unknown, fear of new learning, disruptions of stable relationships and loss of power. This existed throughout organisational levels and sections. This was linked to existing culture and leadership styles and structure. Staff appeared to have limited trust and resist the sharing of information. They indicated that often authoritative leadership styles inhibited creativity through fear of failure, thus emphasising compliance. They appeared to indicate that often a lack of change leadership, complacency and quests for power within the hierarchical structure constrained responsibility, action and learning.

On line learning cannot be addressed as a separate issue from the environment for learning within the organisation. While this is only a limited study, it would appear that treating on line delivery as a bolt on extra would be a waste of resources. This study indicates that there needs to be **wider debate on the role of learning** within the organisation. Addressing goals, resources and responsibility are part critical management debate that must take place. However, permeating the organisation with some early success may be a tactical option within this more strategic debate.

Recommendations and Action Plan

This project was focused on actions that might aid the initial implementation of an on-line learning program. The existing barriers to such a change program include a lack urgency for change, vision and leadership for such a change. These recommendations focus on the actions that will facilitate these problems being overcome in the future.

Recommendations

Due to the barriers to change described above the recommendations are grouped around a dual tactical and strategic approach for change. First change could be accelerated from the bottom by introducing tactical initiatives for early success and familiarisation. Second, action to develop debate and gain further understanding and commitment to learning and on line learning is necessary to underpin any future activity.

- 1) Planning initial successes that will increase the momentum of change. This involves demonstrating the benefits of on-line learning on four levels – learners’ experience, learning of content, application of learned material to the job and overall organisational benefits.
- 2) Successful policy commitment, communication and marketing of the change.

Creating initial successes

Steps	Actions
Prepare staff for the on-line learning program - 1. Developing staff's competency in on-line learning 2. Developing staff's competency in self-development	<ul style="list-style-type: none">• Preliminary computer skills development courses – The International Computer Skills Driving License, Talent Bank• Run staff development workshops with on-line and print media carried out side by side
Develop a measures: 1) Instructional, 2) Performance, and 3) Financial	<ul style="list-style-type: none">• Conduct an instructional analysis – link instruction to business objectives• Relate instructional design to learners' styles, attributes• Apply Hierarchical, Procedural and Cluster analysis• Establish instructional goals and benchmarks• Develop Performance Measure• Develop Rate of Return Measure
Trial the new learning	<ul style="list-style-type: none">• Pilot on-line and self-development training with samples groups
Conduct Measure	<ul style="list-style-type: none">• Conduct a learner survey examining learners' reactions to on-line training.• Measure and test the knowledge learnt• Compare learning to traditional training methods and emphasise the benefits.

	<ul style="list-style-type: none"> • Measure the transfer of training to the job and resulting performance and compare with traditional training methods - emphasise advantages • Conduct a longitude measure of operational performance overtime - remove moderating variables and compare with benchmarks of similar organisations in other states or countries • Measure rate of return by comparing costs with savings and improved performance
Reward the new learning	Reward improvements in performance related to the new learning culture through bonuses, funding and resources

Improving the communication and marketing of the change

Improving the communication and marketing of the change communication comprises of formal and informal modes of communication. Formal communication aids legitimisation of the new behaviour. Informal communication and modelling is useful in increasing motivation, commitment and reducing resistance. Research argues that consultation and involvement of staff in the communication increases the degree of change experienced. Team projects and open forums are effective ways of involving staff in the process. Research has also shown that leaders modelling behaviours assists in promoting culture changes. Managers will be crucial in facilitating the new learning behaviours by modelling. They will be crucial for enabling and empowering staff to engage in the new behaviours through integration into work processes. Selected staff should be used as models to encourage others to adopt. Teams may be an option.

Communication Requirements:

Requirements	Explanation
Integrated	Aim to integrate communication with policies, strategies and vision. Open debate with policy papers.
Planned	Create a communication plan and objectives for discussion. Broadcast the plan.
Coordinated	Maintain consistency in the message communicated throughout the organisation.
Receiver orientated	Ensure communication is directed to the correct group, through

	appropriate channels, contains content relevant to them, and timed to have the maximum impact. Choose key targets.
Vigorous	Maintain regular dialogue between parties affected by the change. Plan feedback sessions.

Communication Modes	Communication Methods
- Formal	Intranet, emails, print memos
- Informal	Word of mouth, peer groups, Project Teams, quality teams, problem solving workshops, on-line discussion forum, job advertisements on-line
Experiencing	Select sample, frontline managers facilitate learning, reward sample. Foster on line learning champions.

APPENDIX THREE: INTERVIEW PROTOCOL

Preamble:

- This project is about exploring online learning options for the DPI.
- I want to discuss a number of questions about learning in your organisation

Explain questions:

1 – What are the current formal and informal HRD practices in the organisation?

2 – What are the current organisational issues?

3 – What are the current issues with HRD and learning within the organisation?

3 – What are the options for changing HRD practice and improving organisational performance through organisational learning

Each employee selected for interview will then be given the opportunity to decline the options both before and at the start of the interview. Nobody in the organisation will be made aware of any employee not filling in a survey or declining an interview. The participant will sign one form and will be given a copy of the form.

There are slight variations in the different types of protocol depending on participant role within the organisation, but each consists of the same basic questions.

The additional prompts are only to help guide the interviewers, check the data being received and give ideas for probing undisturbed territory.

Participant :

Department _____

Name _____ **Pseudonym** _____

Position _____

Contact Details _____

Date _____

Overview: the numbered questions represent generic question domains. The bulleted questions represent typical prompt question used to probe further into the informants' responses.

1) How would you describe the DPI's online/learning culture?

- How would you describe the type of learning engaged in?
- Are there forms of Transformational learning approaches engaged in?
- What learning values and beliefs are prevalent at the DPI?

2) How would you describe the DPI's local leadership regarding online/learning?

- How would you describe senior leadership support for various online/learning approaches?
- Are there any forms of learning that are de-promoted by leadership and staff?
- How would you describe the leadership paradigm?

3) How would you describe the DPI's strategic plans regarding online/learning – What forms of online/learning are focused on?

4) How would you describe provision of resources for online/learning?

- Job structure and online/learning approaches?
- How would you describe staff and instructors online/learning abilities?

5) What are the existing opportunities and barriers for the utilisation of online learning in learning practices and on-the-job learning activities at the DPI?

6) What role do you believe online learning technology plays in the DPI's learning practices?

APPENDIX FOUR: ETHICAL CLEARANCE FORM

Online Learning in the DPI

Participant Briefing

This study is a research project exploring Online Learning in the DPI.

The aim of the project is to find out what is happening currently in terms of development activity and to explore future options. The project is asking what development practices are operating within organisations, what are current issues with the organisation and development practices, and what options exist for improving online development practices for the organisation.

We are particularly interested in who manages to gain access to what formal and informal development activity. We are also interested in what are current organisational issues and how related development practices can help the organisation grow and prosper.

The project will collect the views of some managers and employees by interviews. We will be asking you to give an hour to answering questions and we would like to note your comments so that the project can use all your thoughts on the questions we cover.

Your interviewer will give you a contact number so that you can add any comments which you think of later on.

We give a guarantee that your comments will be taken with the utmost confidentiality. They will never be available to anyone at your workplace. Any written document that is produced by the research team will use different names for the people involved in each organisation. Your interviewer may ask you if you would like to check the notes of your interview when they have been produced.

We hope that this project will be able to make a contribution to changing and improving the human resource development activity within the organisation for all staff.

Naturally you also have the choice not to participate in the interview or withdraw at any time, and this will decision will remain confidential to the interviewer.

Any questions concerning this project can be directed to Llandis Barratt-Pugh (Principal Investigator) of Edith Cowan School of Management on 08 9273 8775.

If you have any concerns about the project or would like to talk to an independent person, you may contact, Research Ethics Officer ECU Ph: 6304 2170

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CONSENT FORM : Online Learning in the DPI

I (the participant) have read the information above concerning **Online Learning in the DPI**
- *Participant Briefing* and any questions I have asked have been answered to my satisfaction.

I agree to participate in this activity, realising I may withdraw at any time. I understand that I will be interviewed and notes will be taken.

I agree that the research data gathered for this study may be published to promote the effective understanding of culture change within the DPI, provided that I am not identifiable. I also understand that the notes will be disposed once the project is complete.

Participant Interviewee

_____ Date _____

Interviewer

_____ Date _____